From: Murray, David (GOV)
Sent: Tuesday, January 05, 2016 1:10 PM
To: Stoken, Laura (GOV)
Subject: Note about Flint water story

"We will cooperate fully with any requests from the U.S. Attorney's Office as it looks into Flint's water challenges. Gov. Snyder has appointed an independent panel that is reviewing all state, local and federal actions related to the situation. We are committed to working with Mayor Karen Weaver and county leaders as we focus on protecting the health of Flint residents and all Michiganders."

Dave Murray
Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

From: Murray, David (GOV)
Sent: Tuesday, January 05, 2016 1:14 PM
To: Biehl, Laura (GOV)
Subject: FW: Genesee County request for Declaration of Emergency/Flint Water - Response Requested
Attachments: 2016-01-05 Flint Water Governor's Declaration DRAFT.docx

Dave Murray
Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]mobile
Twitter:@michigandmurray

From: Smith, Paul (GOV)
Sent: Tuesday, January 05, 2016 1:10 PM
To: Snyder, Rick (GOV) <[redacted]
Cc: Scott, Allison (GOV) <scotta12@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Redford, James (GOV) <RedfordJ@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Ackerman, Darin (GOV) <ackermand3@michigan.gov>; Lange, Michelle (GOV) <LangeM3@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; Heaton, Anna (GOV) <HeatonA@michigan.gov>; Holland, Meegan (GOV) <HollandM2@michigan.gov>; Arwood, Cheri (GOV) <ArwoodC@michigan.gov>
Subject: Genesee County request for Declaration of Emergency/Flint Water - Response Requested

Governor,

On January 4, 2016, Genesee County requested that a "State of Emergency/Disaster." The Emergency Management & Homeland Security Division (EMHSD) of MSP has reviewed the request and now recommends that a declaration of emergency be granted. If signed today it will be in effect until February 1, 2016 (unless extended).

A copy of the proposed declaration is attached. Please advise whether you wish to proceed as recommended.

EMHSD has concluded:

- The situation is sufficiently widespread and severe.
- The situation adversely impacts public health, safety and welfare. The presence of lead in drinking water has been documented. The full extent and required remediation remain unknown.
- The potential fiscal impact to the city of Flint is severe. The current situation poses an extraordinary financial burden.

- The city and county do not possess the technical expertise to fully identify impacts and remediation.

EMHSD recommends activation of the SEOC which will include:
- Attendance by all state agencies;
- Situation Reports by all state agencies for situational awareness and to develop a common operating picture;
- Technical briefings by MDEQ and MDHHS on the situation.

Following initial SEOC briefings, state agencies must determine (in consultation with the state director of EMHS) if they need to play a role in ongoing SEOC operations to contribute to addressing the Flint water issue. EMHSD recommends, at minimum, that the following agencies should maintain a presence in the SEOC during the operational period: MDEQ, MDHHS, MI Department of Education, DTMB, Department of Talent and Economic Development, and MDARD. The SEOC operational period is to be determined but will at minimum be 8-5 Monday through Friday.

The initial focus of the SEOC will be to:
- Identify and implement any needed protective actions to protect public health and safety;
- Develop situational awareness and common operating picture;
- Develop understanding of technical aspects;
- Coordinate damage assessment;
- Review resource requests;
- Coordinate public information; and
- Identify programs to assist in remediating damage.

Finally, EMHSD staff recommends:
- Activation of a Joint Information Center located in Flint which will include PIOs from Genesee County, the city of Flint, and other appropriate local agencies.

Paul C. Smith
Deputy Legal Counsel
Office of the Governor – Legal Division

517.241.5598 (office)
[redacted] (cell)
smithp29@michigan.gov

PROCLAMATION

DECLARATION OF EMERGENCY

WHEREAS, Section 1 of Article V of the Michigan Constitution of 1963 vests the executive power of the state of Michigan in the Governor; and

WHEREAS, under the Emergency Management Act, Act No. 390 of the Public Acts of 1976, as amended, MCL 30.401 to 30.421, the Governor is responsible for coping with dangers to this state or the people of this state presented by a disaster or emergency or threat thereof, and may issue executive orders, proclamations, and directives having the force and effect of law to implement the Act; and

WHEREAS, under Section 3 of the Emergency Management Act, 1976 Public Act 390, MCL 30.403, the Governor shall, by executive order or proclamation, declare a state of emergency if the Governor finds that an emergency has occurred or that the threat of an emergency exists; and

WHEREAS, on April 25, 2014 the City of Flint, Michigan switched from the Detroit water system to the Flint River as a water source, the harmful effects of corrosive water struck the city's water infrastructure, causing significant leaching of lead into the water which caused extensive damage to the water system and negative health impacts to the citizens; and

WHEREAS, the area affected includes the entire City of Flint, within the County of Genesee; and

WHEREAS, the damaged water infrastructure and leaching of lead into the city's water caused widespread damage to public and private water infrastructure, elevated blood lead levels in humans and potentially pets, especially in the population of children and pregnant women, and causing an immediate threat to public health and safety and disrupting vital community services; and

WHEREAS, from October 1, 2015 to this date, the County of Genesee and the City of Flint have taken a number of actions to cope with the situation, including but not limited to switching back to the Detroit water system on October 16th, declaring local states of emergency, activating the emergency response and recovery aspects of their emergency operations plan, marshaling and distributing required resources on a city-wide level, and issuing emergency public information and bulletins; and

WHEREAS, local resources have been insufficient to address the situation, and additional assistance from voluntary organizations and the state is required to protect public health, safety, and property, and to lessen or avert the threat of more severe and long lasting impacts to the community;

NOW, THEREFORE, I, RICHARD D. SNYDER, Governor of the State of Michigan, pursuant to the Constitution of the State of Michigan and provisions of Act No. 390 of the Public Acts of 1976, as amended, do hereby proclaim that a state of emergency exists in the aforementioned county and municipality; and

FURTHER, the Emergency Management and Homeland Security Division of the Department of State Police shall coordinate and maximize all state efforts, and may call upon all state departments to utilize resources at their avail to assist in the emergency area pursuant to the Michigan Emergency Management Plan; and

FURTHER, termination of this emergency will occur at such time as the threats to public health, safety, and property caused by the emergency no longer exist and appropriate programs have been implemented to recover from the effects of this emergency, but in no case longer than February 1, 2016, unless extended as provided by Act No. 390.

Given under my hand and the
Great Seal of the State of Michigan this
5th day of January in the Year of Our
Lord, Two Thousand and Sixteen.

_____

RICHARD D. SNYDER
GOVERNOR

BY THE GOVERNOR:

_____

SECRETARY OF STATE

From: Murray, David (GOV)
Sent: Tuesday, January 05, 2016 2:10 PM
To: 'david.bailey@thomsonreuters.com'
Subject: RE: Flint water contamination investigated by US EPA, prosecutors

Hi Dave,

This threw me for a loop for a couple moments. There is an excellent television reporter based in Grand Rapids – Michigan – who I work with frequently and I couldn't figure out why he was asking about this issue and when in the last week did he switch to Reuters. Now I get it.

Here's our statement, which you can attribute to me.

"We will cooperate fully with any requests from the U.S. Attorney's Office as it looks into Flint's water challenges. Gov. Snyder has appointed an independent panel that is reviewing all state, local and federal actions related to the situation. We are committed to working with Mayor Karen Weaver and county leaders as we focus on protecting the health of Flint residents and all Michiganders."

Happy to help all David Baileys, any time.

Dave

Dave Murray
Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

From: david.bailey@thomsonreuters.com [mailto:david.bailey@thomsonreuters.com]
Sent: Tuesday, January 05, 2016 2:05 PM
To: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: Flint water contamination investigated by US EPA, prosecutors

Hi,

I am a reporter from Reuters. Has the governor's office talked with the U.S. Attorney in Detroit or the U.S. EPA about the Flint water crisis?
Have you been notified formally of a federal criminal or civil probe about the drinking water supply in Flint?
Does the governor have a comment on the acknowledgement by the U.S. Attorney's Office in Detroit that they are looking into the contamination?

Any help much appreciated.

Sincerely,

David Bailey

David Bailey
Minnesota Correspondent

Reuters News

Phone: +1 952 582-1164
[redacted]
david.bailey@thomsonreuters.com
thomsonreuters.com

From: Murray, David (GOV)
Sent: Tuesday, January 05, 2016 2:11 PM
To: 'Burr, Richard'
Subject: RE: Detroit News request for comment on Common Cause Michigan's call for all Flint documents protected by FOIA

Hi Richard,

The Governor is proud of the efforts his office has made to increase transparency and accountability, including dashboards featuring metrics for each department and creation of a citizen's guide to how state and local governments spend money. We're always focusing on continuous quality improvement in this area.

The Governor also has promised complete cooperation with the independent Flint Water Task Force that is reviewing all state, local and federal actions related to the situation as the administration focuses on the health and welfare of people in Flint and across the state.

Dave Murray
Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

From: Burr, Richard [mailto:RBurr@detroitnews.com]
Sent: Tuesday, January 05, 2016 2:00 PM
To: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: Detroit News request for comment on Common Cause Michigan's call for all Flint documents protected by FOIA

Dave,
I just need the statement you gave to MLive, Flint Journal about the Common Cause call for Gov/ Rick Snyder to drop his executive privilege and release all documents and correspondence connected to the Flint water crisis.

Richard Burr
Politics and Government Editor
The Detroit News
160 W. Fort St.
Detroit, MI 48226
(313) 222-2294
rburr@detroitnews.com

From: Murray, David (GOV)
Sent: Tuesday, January 05, 2016 2:24 PM
To: 'Zach Gorchow'
Subject: Statement

We will cooperate fully with any requests from the U.S. Attorney's Office as it looks into Flint's water challenges. Gov. Snyder has appointed an independent panel that is reviewing all state, local and federal actions related to the situation, and we are fully cooperating with any requests made by that panel as well. We are committed to working with Mayor Karen Weaver and county leaders as we focus on protecting the health of Flint residents and all Michiganders.

Dave Murray
Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

From: Brown, Eric (GOV)
Sent: Thursday, September 17, 2015 9:50 AM
To: Bill McBride (mcbrideb@michigan.gov)
Subject: flint water letters
Attachments: 2015-09-09- Congressman Kildee Letter on Lead in Flint Water.pdf; Congressman Kildee Response re Flint Water.pdf; Hon. Daniel Kildee 09-15-15.pdf; Additional Support for Flint Water Improvement Plan, 9.14.15.pdf

1. Letter from Kildee to EPA and MDEQ (received 9/9)
2. MDEQ response to Kildee (sent 9/16)
3. EPA response to Kildee (sent 9/15)
4. Letter to Governor Snyder from Flint Mayor Walling (sent 9/14, received 9/16). Harvey Hollins has been asked to draft the response.

Eric K Brown
Senior Federal Policy Representative
State of Michigan – Governor Rick Snyder
Washington D.C. Office
202.624.5840 (office)
[redacted]

DANIEL T. KILDEE
5TH DISTRICT, MICHIGAN

COMMITTEE ON
FINANCIAL SERVICES

SUBCOMMITTEE ON
HOUSING AND INSURANCE

SUBCOMMITTEE ON
MONETARY POLICY AND TRADE

SENIOR WHIP

DEMOCRATIC POLICY AND
COMMUNICATIONS COMMITTEE

Congress of the United States
House of Representatives
Washington, DC 20515

September 9, 2015

WASHINGTON OFFICE

227 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-3611
(202) 225-6393 (FAX)

DISTRICT OFFICE

111 EAST COURT STREET #3B
FLINT, MI 48502
(810) 238-8627
(810) 238-8658 (FAX)

WWW.DANKILDEE.HOUSE.GOV
/REPDANKILDEE
@REPDANKILDEE

Ms. Gina McCarthy
Administrator
Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, D.C. 20460

Mr. Dan Wyant
Director
Michigan Department of Environmental Quality
P.O. Box 30473
Lansing, MI 48909

Administrator McCarthy and Director Wyant:

The attached June 24, 2015, memorandum between two Environmental Protection Agency (EPA) employees, Miguel A. Del Toral and Thomas Poy, published recently by the American Civil Liberties Union of Michigan, suggests that there are high lead levels in the city of Flint, Mich., water transmission lines. Furthermore, this document reflects that children consuming this water had levels of lead in their blood in excess of three times what they were prior to the city of Flint switching its source water from the Detroit Water and Sewage Department (DWSD) to the Flint River.

In addition, this memorandum makes recommendations to Mr. Poy, Chief of the Ground Water and Drinking Water Branch of EPA Region 5, to do three things. First, for the EPA to work with the Michigan Department of Environmental Quality (MDEQ) to provide technical assistance to the city of Flint to deal with water quality issues. Second, it suggests the EPA review the compliance status of the city of Flint in respect to its compliance with the Lead and Copper Rule (LCR). Third, the memorandum recommends that the EPA conduct a review of the city of Flint testing procedures to ensure they are compliant with the LCR.

Regarding this memorandum and the surrounding water quality issues in the city of Flint, I have the following questions:

- Was this memorandum actually sent to Mr. Poy?

- Are the findings in the memorandum regarding the lead levels in the city of Flint water accurate?

- If there were in fact high levels of lead in the water in the city of Flint, when did the EPA and/or MDEQ plan to alert the public?

- What, if any, of the recommendations has the EPA followed from the memorandum?

- Given the demonstrated level of lead in the water in Flint, MI, is the water safe?

Regardless, I am very troubled by recent tests suggesting high levels of lead in the city of Flint's water system. As you know, on the EPA's website it says that lead above the "action level" in drinking water can cause a variety of adverse health effects, including delays in physical and mental development in babies and children.

According to the Safe Drinking Water Act, the EPA has the responsibility of enforcing water quality standards. EPA, however, has given the primary responsibility of enforcing water quality standards to the state of Michigan via MDEQ. As such, it is the responsibility of these agencies to ensure that the people of the city of Flint have safe drinking water.

Thank you and I look forward to hearing from you soon.

Sincerely,

Dan Kildee
MEMBER OF CONGRESS

cc:

State Senator Jim Ananich
State Representative Sheldon Neeley
State Representative Phil Phelps
Mayor Dayne Walling, City of Flint
Howard Croft, City of Flint
Susan Hedman, EPA
Thomas Poy, EPA
Michael Schock, EPA-ORD
Darren Lytle, EPA-ORD
Denise Fortin, EPA
Liane Shekter-Smith, MDEQ
Pat Cook, MDEQ
Stephen Busch, MDEQ
Brad Wurfel, MDEQ
Marc Edwards, Virginia Tech

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

RICK SNYDER
GOVERNOR

DAN WYANT
DIRECTOR

September 16, 2015

VIA E-MAIL

The Honorable Daniel Kildee
United States House of Representatives
Washington, DC 20515

Dear Congressman Kildee:

Thank you for your September 9, 2015, letter regarding your concerns for the drinking water in the city of Flint (Flint). The Michigan Department of Environmental Quality (MDEQ) is working closely with Flint's water department as well as the U.S. Environmental Protection Agency (USEPA) to ensure Flint residents have ample water that meets state and federal drinking water standards.

The MDEQ's role is to administer its nearly 40-year-old state drinking water protection program based on federal guidelines. The MDEQ works with approximately 11,500 public water systems in the state to monitor for more than 90 primary drinking water contaminants and ensure that every supply consistently provides safe drinking water.

In Flint, the city made a decision 18 months ago to switch drinking water sources. This change required them to take specific measures under the federal Lead and Copper Rule, which was enacted in 1991 to monitor water as it interacts with lead service connections and home plumbing. Flint's test results were conducted according to the same testing protocols every Michigan community uses and the same protocols Flint has used to test its water every three years for the past 25 years.

While the results from Flint's testing show compliance with the federal action level for lead and copper, on August 17, 2015, the MDEQ instructed the city to move forward expeditiously with developing additional corrosion control treatment to minimize the corrosive effects between drinking water and lead service connections and home plumbing in the Flint service area.

We appreciate and share your concern for the situation, and the MDEQ looks forward to providing you a detailed briefing next week. If you have any additional questions in the meantime, please contact Ms. Maggie Pallone, Deputy Director, Policy and Legislative Affairs, at 517-284-6704 or pallonem@michigan.gov; or you may contact me.

Sincerely,

Dan Wyant

Dan Wyant
Director
517-284-6700

cc: Senator Jim Ananich
Representative Sheldon Neeley
Representative Phil Phelps
Mayor Dayne Walling, City of Flint
Mr. Howard Croft, City of Flint
Dr. Susan Hedman, Regional Administrator, USEPA, Region 5
Mr. Thomas Poy, USEPA, Region 5
Ms. Denise Fortin, USEPA, Region 5
Mr. Michael Schock, USEPA
Mr. Darren Lytle, USEPA
Mr. Marc Edwards, Virginia Tech
Mr. Harvey Hollins, Governor's Southeast Michigan Office
Mr. Bill McBride, Governor's Washington Office
Mr. Eric Brown, Governor's Washington Office
Mr. Jim Sygo, Chief Deputy Director, MDEQ
Ms. Madhu R. Anderson, Deputy Director, MDEQ
Ms. Maggie Pallone, Deputy Director, MDEQ
Ms. Sarah M. Howes, Legislative Liaison, MDEQ
Mr. Brad Wurfel, Communications Director, MDEQ
Ms. Liane Shekter Smith, MDEQ
Mr. Stephen Busch, MDEQ
Mr. Pat Cook, MDEQ

United States Environmental Protection Agency
Regional Administrator
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

SEP 15 2015

The Honorable Daniel Kildee
Member, U.S. House of Representatives
Washington, D.C. 20515-1313

Dear Congressman Kildee:

Thank you for your September 9, 2015 letter regarding drinking water quality in the City of Flint. EPA is actively working with the Michigan Department of Environmental Quality (MDEQ) to help the City provide clean and safe water.

Consistent with the recommendations in the internal memorandum cited in your letter, EPA is working with MDEQ to monitor Flint's compliance with the federal Lead and Copper Rule. On August 17, 2015, MDEQ notified Flint that additional treatment will be required to optimize corrosion control and the City is taking steps to do so. Experts from EPA's Office of Research and Development are providing technical assistance to Flint to implement those corrosion control improvements.

Flint residents who are concerned about lead in drinking water may request water sampling by the local water utility. General information about lead in drinking water and tips to reduce lead exposure are available at http://water.epa.gov/drink/info/lead/index.cfm

Again, thank you for your letter. We look forward to a more detailed discussion at the meeting that is being set up on Monday. In the meantime, if you have further questions, please contact me or your staff may contact Denise Fortin or Ronna Beckmann, the Region 5 Congressional Liaisons, at (312) 886-3000.

Sincerely,

Susan Hedman
Regional Administrator

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (100% Post-Consumer)

CITY OF FLINT

Dayne Walling
Mayor

September 14, 2015

The Honorable Rick Snyder
Governor, State of Michigan
P.O. Box 30013
Lansing, MI 48909

RE: Call for Additional Support for Flint Water Improvement Plan

Dear Governor Snyder:

On behalf of the Flint community, I am writing with a renewed request for additional support to address Flint's water challenges to ensure that water is affordable and secure for everyone in Flint especially our vulnerable populations. I am asking for an additional $30 million in funds for Flint's infrastructure and a new healthy homes initiative.

Significant progress has been made throughout this year to increase water safety and quality and I thank you for the involvement of your office, the Michigan Department of Environmental Quality, and the Michigan Department of Treasury. A majority of items in the Water Improvement Plan are completed or underway. Most importantly, Flint is now in compliance with the Safe Drinking Water Act due in large part to the installation of the new carbon filter. The infrastructure systems are being made more secure and efficient through the State grants. Now the City is committed to following the recommendation of the Michigan Department of Environmental Quality to optimize the treatment process, reduce corrosion and further minimize risks from lead.

The need to accelerate the City's capital improvement investments remains and has been further increased by the continued financial stress and legal issues. Previously I requested support for replacement or forgiveness of payment to the Drinking Water Revolving Loan Fund due to Flint's status as a distressed community and the gap in funding in the adopted capital improvement plan. I understand that the existing federal law does not allow the existing Drinking Water Revolving Loans that Flint is carrying to be forgiven in retrospect but the need still exists. Flint owes approximately $20 Million. One solution is for the State to grant a new $20 Million that is designed as forgivable from the start. Another solution is to provide

City of Flint • 1101 S. Saginaw Street • Flint, Michigan 48502
www.cityofflint.com • (810) 766 - 7346 • Fax: (810) 766 - 7218

equivalent funding through an expansion of the grant program to Michigan's Financially Distressed Cities, Villages and Townships with a supplemental budget amendment in cooperation with the State Legislature.

The community's heightened concern about lead leeching into the water from old service lines and home plumbing also needs to be addressed. We know that lead is an environmental contaminant and there have been many programs in place over the years to address sources in paint and pipes. Flint needs a new healthy homes initiative specifically focused on lead in water with $10 Million to start the process of replacing service lines for the most vulnerable households. Regardless of the source and treatment of Flint's water, this long term threat of lead in pipes needs to be removed in the interest of public health.

My approach continues to be to work with you and your appointed officials, State Senator Ananich, State Representatives Phelps and Neeley, Congressman Kildee, community groups, businesses, churches, foundations, the Flint City Council, and all of the City of Flint and State and Federal government personnel. We need every available expert and resource to address Flint's water problems.

Flint's safety is my top priority. Just as the City and State have worked together on public safety, we need additional support for fixing the water problems. We need $30 Million in new funds to repair and update the city-wide infrastructure and to assist households in becoming lead-free. The entire Flint community deserves sustainable, safe, secure and affordable water now and into the future. Thank you for the consideration Governor and I look forward to future discussions.

Sincerely,

Dayne Walling
Mayor, City of Flint

CC: Flint City Council President Joshua Freeman; Congressman Dan Kildee; State Senator Jim Ananich; State Representative Sheldon Neeley; State Representative Phil Phelps; EPA Regional Administrator Dr. Susan Hedman; Chief of Staff Dennis Muchmore

From: Brown, Eric (GOV)
Sent: Thursday, September 24, 2015 2:38 PM
To: Muchmore, Dennis (GOV)
Subject: Re: Conf Call re Flint Water

Yes, thanks

Sent from my mobile device

> On Sep 24, 2015, at 2:36 PM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:
>
> Do you want to be on this call?
>
> -----Original Appointment-----
> From: Muchmore, Dennis (GOV)
> Sent: Thursday, September 24, 2015 1:41 PM
> To: Muchmore, Dennis (GOV); Hollins, Harvey (GOV); Clement, Elizabeth (GOV); Clayton, Stacie (GOV); Baird, Richard (GOV); VanSickle, Michele (GOV); Murray, David (GOV); Wyant, Dan (DEQ); Thelen, Mary Beth (DEQ); Wurfel, Brad (DEQ); Lyon, Nick (DCH); Lasher, Geralyn (DCH); Grijalva, Nancy (DCH); Saxton, Thomas (Treasury); Pleyte, Beth (Treasury); Walsh, John (GOV); Hall, Jean (GOV); Mcbride, Bill (GOV)
> Subject: Conf Call re Flint Water
> When: Thursday, September 24, 2015 3:30 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).
> Where: [redacted]
>
>
> [redacted]
> [redacted]
> [redacted]Harvey to host
>
>
> <meeting.ics>

From: Brown, Eric (GOV)
Sent: Thursday, October 01, 2015 10:43 AM
To: Pallone, Maggie (DEQ)
Subject: FW: Flint Water Issue - Rep. Kildee Letter Received By Federal Agencies
Attachments: 09-22-15 Kildee Requesting Temporary Assistance for Lead in Flint Water.pdf; Flint Pediatric Lead Concerns REVISED.PDF

Importance: High

9/22 Kildee letter to FEMA, et al.

From: Mcbride, Bill (GOV)
Sent: Monday, September 28, 2015 5:53 PM
To: Brown, Eric (GOV) <BrownE15@michigan.gov>
Subject: FW: Flint Water Issue - Rep. Kildee Letter Received By Federal Agencies
Importance: High

From: Wurfel, Sara (GOV)
Sent: Monday, September 28, 2015 5:52 PM
To: Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Mcbride, Bill (GOV) <mcbrideb@michigan.gov>
Cc: Murray, David (GOV) <MurrayD1@michigan.gov>; Wisniewski, Wendy (GOV) <wisniewskiw@michigan.gov>
Subject: FW: Flint Water Issue - Rep. Kildee Letter Received By Federal Agencies
Importance: High

Please see attached and below just in case … sounds like we should have follow up conversation with MSP team and make sure we're coordinating with DEQ, DHHS and Treasury.

From: Kelenske, Chris (MSP)
Sent: Monday, September 28, 2015 5:49 PM
To: Etue, Kriste (MSP) <EtueK@michigan.gov>; Gorski, Gary (MSP) <GorskiG@michigan.gov>; Smith, Paul (GOV) <SmithP29@michigan.gov>
Cc: Katarsky, Anthony (MSP) <KatarskyA@michigan.gov>; Leix, Ron (MSP) <LeixR@michigan.gov>; Banner, Shanon (MSP) <BannerS@michigan.gov>; Wurfel, Sara (GOV) <WurfelS@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: Flint Water Issue - Rep. Kildee Letter Received By Federal Agencies
Importance: High

Attached are two documents for your information: 1) A letter from US Representative Kildee to Craig Fugate of FEMA, HHS, EPA, and CDC and 2) a PowerPoint on Flint water concerns. Essentially, Representative Kildee is requesting FEMA take action to resolve potable water quality issues associated with the Flint water system.

This is the first we heard of the letter and I actually found out from the FEMA Region V Director when he called me about an hour ago. He and I discussed a few things on this and he will respond advising they need to work through the

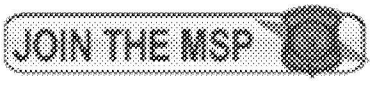
local EM system in MI (engaging the local EM and then EMHSD). They also are working through the local health department as I confirmed with Dr. Scott from DHHS. If Flint needs water or want water the first step is to handle it locally (at least on the EM side and then push up any gaps they cannot fill to us). We are not aware of any work the local EM has done in this regard. I will be with the FEMA Region V Director as well as the FEMA Administrator, Craig Fugate, this week if they have questions.

I have advised Dr. Jackie Scott from DHHS and will be sending her the letter and ppt.

Chris

Capt. Chris A. Kelenske
Deputy State Director/Commander
Emergency Management and Homeland Security Division
Michigan State Police
4000 Collins Road
Lansing, MI 48910
(517) 333-5042

"A PROUD tradition of SERVICE through EXCELLENCE, INTEGRITY, and COURTESY."



DANIEL T. KILDEE
5TH DISTRICT, MICHIGAN

COMMITTEE ON
FINANCIAL SERVICES

SUBCOMMITTEE ON
HOUSING AND INSURANCE

SUBCOMMITTEE ON
MONETARY POLICY AND TRADE

SENIOR WHIP

DEMOCRATIC POLICY AND
COMMUNICATIONS COMMITTEE

Congress of the United States
House of Representatives
Washington, DC 20515

WASHINGTON OFFICE

227 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-3611
(202) 225-6393 (FAX)

DISTRICT OFFICE

111 EAST COURT STREET #3B
FLINT, MI 48502
(810) 238-8627
(810) 238-8658 (FAX)

WWW.DANKILDEE.HOUSE.GOV
/REPDANKILDEE
@REPDANKILDEE

September 22, 2015

Secretary Sylvia Matthews Burwell
U.S. Department of Health & Human Services
HHS Office of the Secretary
200 Independence Avenue, S.W.
Washington, DC 20201

Administrator William Craig Fugate
Federal Emergency Management Agency
500 C Street, S.W.
Washington, DC 20472

Administrator Gina McCarthy
Environmental Protection Agency
Office of the Administrator 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Director Tom Frieden
Centers for Disease Control and Prevention
1600 Clifton Road
Atlanta, GA 30329

Secretary Burwell, Administrator McCarthy, Administrator Fugate and Director Frieden:

Recent developments regarding the level of lead in the water in one of the communities I represent, Flint, Mich., have raised significant concerns about the safety of its drinking water. For this reason, I am requesting immediate resources to provide safe drinking water to the residents of Flint until additional testing can be completed that confirms the water is safe, particularly for young children.

Although the city of Flint and the Michigan Department of Environmental Quality have conducted tests and taken the position that the lead level in the water is safe and below the action level, there are significant questions about the efficacy of their testing. In fact, Dr. Marc Edwards of Virginia Tech University, an established drinking water expert, conducted his own tests as part of a study that determined the water in Flint was above the lead action level.

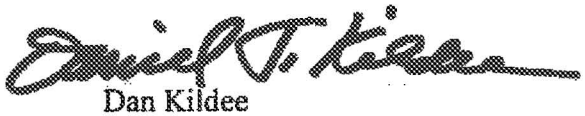
Additionally, yesterday the Greater Flint Health Coalition, a group of health professionals in the community, released a report showing elevated blood lead levels in residents in Flint, particularly in young children. In response, the Coalition has requested that the Genesee County Health Department release a health advisory indicating that the water in Flint is unsafe to drink.

Thus, I am requesting resources from your agency to provide clean drinking water to the residents of Flint until additional testing can determine when the water will be safe to drink and a long-term solution can be implemented.

This is a serious health issue, particularly for young children, and until the water is demonstrated to be safe, immediate action must be taken to ensure Flint's residents have potable drinking water.

I look forward to working with you and thank you for your immediate attention.

Sincerely,

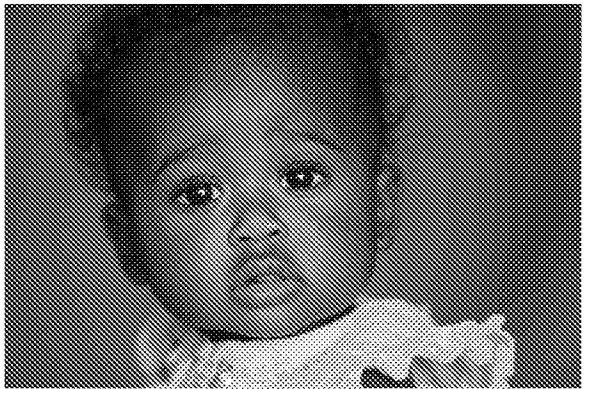


Dan Kildee
MEMBER OF CONGRESS

Pediatric Lead Exposure In Flint, Michigan:
A Failure of Primary Prevention

Mona Hanna-Attisha MD MPH FAAP
Hurley Children's Hospital
Michigan State University Department of Pediatrics and Human Development

Introducing Makayla*



- 12 month old girl (DOB 8/15/2014) presented last week for her 1 year old check up. No concerns.
- Lives with single mom and 2 older siblings in west side (48504). Formula from WIC; powder mixed with warm tap water.
- Physical exam and development are normal. Makayla receives her 1 year old vaccines and routine lead and hemoglobin screening.
- *A couple days later, lead level comes back as 6 ug/dL.*

*Hypothetical scenario

Blood lead level of 6 ug/dL….

- Blood lead levels (BLL) above 5 ug/dL are considered elevated blood lead levels (EBL)
- Just a few years ago (2012), 10 ug/dL was cutoff
- Increasing evidence shows NO safe blood lead level
- Disproportionately impacts low income, minority children
- Primary prevention is most important

Primary Prevention

- "Because no measurable level of blood lead is known to be without deleterious effects, and because once engendered, the effects appear to be irreversible in the absence of any other interventions, public health, environmental and housing policies should encourage PREVENTION of all exposure to lead."

"Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention." 2012 CDC Advisory Committee on Childhood Lead Poisoning Prevention.

What will happen to Makayla?

- Vast evidence supports increased likelihood of:
  - Decrease in IQ
    - An increase in BLL from 1 to 4 ug/dL, drops mean IQ -3.7 points
  - Small change in mean IQ, shifts entire population IQ distribution
    - Reduces high achievers IQs (>130) and increases kids with low IQs (<70)
    - Implications for special education services, employment, incarceration, life achievement, etc

Lanphear BP et al., Low-level environmental lead exposure and children's intellectual function: an international pooled analysis. Environ Health Perspect, 2005. 113:894-9.
Fewtrell LJ, Pruss-Ustun A, Landrigan P, and Ayuso-Mateos JL, Estimating the global burden of disease of mild mental retardation and cardiovascular diseases from environmental lead exposure. Environmental Research, 2004. 94:120-33.

Behavioral Burden

- Increased likelihood of :
  - ADHD behaviors
  - Delinquent behaviors and arrests
  - Total arrests and increased rates of arrests involving violent offenses
  - Other health effects: hematologic, cardiovascular, immunologic, endocrine, etc

Wright, JP, KN Dietrich, MD Ris, et al. 2008. Association of prenatal and childhood blood lead concentrations with criminal arrests in early adulthood. *PLoS Med* 5(5): e101

Chen, A, B Cai, KN Dietrich, et al. 2007. Lead exposure, IQ, and behavior in urban 5-7 year-olds: Does lead affect behavior only by lowering IQ? *Pediatrics* 119(3): e650-e658.

Needleman, HL, C McFarland, RB Ness, et al. 2002. Bone lead levels in adjudicated delinquents: A case control study. *Neurotoxicology and Teratology* 24(6):711-717.

The Cost

- "For childhood lead poisoning, $5.9 million in medical care costs, as well as an additional $50.9 billion (sensitivity analysis: $44.8–$60.6 billion) in lost economic productivity resulting from reduced cognitive potential from preventable childhood lead exposure."

- "The present value of Michigan's economic losses attributable to lead exposure in the 2009 cohort of 5 year-olds ranges from $3.19 (using U.S. blood lead levels) to $4.85 billion (using Michigan blood lead levels) per year in loss of future lifetime earnings."

Leonardo Trasande and Yinghua Liu. Reducing The Staggering Costs Of Environmental Disease In Children, Estimated At $76.6 Billion In 2008. *Health Affairs*, 30, no.5 (2011):863-870

The Price of Pollution: Cost Estimates of Environment-Related Childhood Diseases in Michigan. 2010 Report by Michigan Network of Children's Environmental Health

Lead in Water

- Increasing as source of lead, because of success in controlling other sources.
- Increasing due to aging water infrastructures, change in water sources, disinfectant uses, etc
- Disproportionally impacts developmentally-vulnerable formula-fed infants and pregnant mothers
  - For about 25% of infants drinking formula made from tap water at 10 ppb, blood lead would rise above the CDC level of concern of 5 micrograms/deciLiter (or ug/dL).
  - Increase in fetal death and reduced birth weights

Triantafyllidou, S., Gallagher. D. and Edwards, M. Assessing risk with increasingly stringent public health goals: the case of water lead and blood lead in children. Journal of Water and Health. doi: 10.2166/wh.2013.067 58-68 (2014).
Edwards, M. Fetal Death and Reduced Birth Rates Associated with Exposure to Lead-Contaminated Drinking Water. Env. Sci. and Tech. 2013 DOI: 10.1021/es4034952

Preliminary Results

(results removed)

Conclusions from BLL analysis

- % of children with EBL in Flint has increased
  - Most striking increase in zip codes with highest water lead levels
- Results underestimate risk: infants not screened for lead and water usage unknown.
  - *Accurate exposure largely unknown since national childhood lead screening focuses on household lead exposure (paint, soil, dust) at later ages (1 and 2 yrs)*

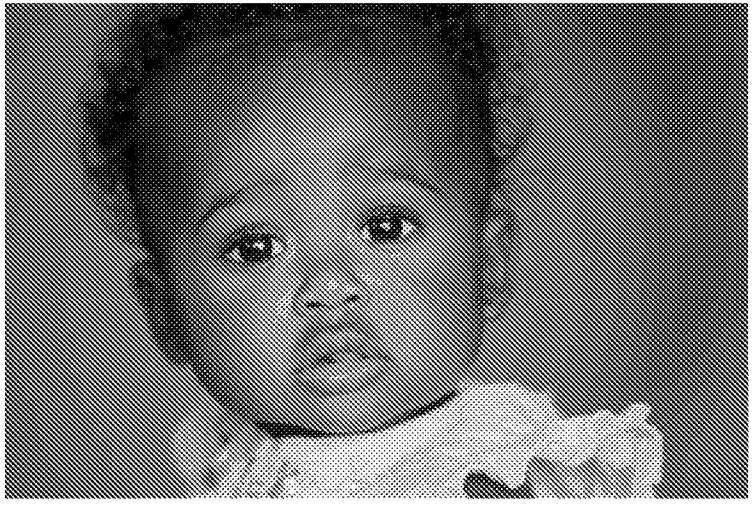
- Results are consistent and concerning. Primary prevention has failed.

Next Steps

- Immediately limit further exposure
  - Encourage breast feeding
  - No tap water for high risk groups: infants on formula & pregnant mothers
  - Declare health advisory: allows WIC to administer water or ready-to-feed formula and other resources (Salvation Army & United Way water supplies)
  - Distribution of lead clearing NSF-approved filters
  - Public education regarding precautions (flushing, etc)
  - Re-connect to Lake Huron water source ASAP

And Makayla…

- Asymptomatic now
- But what will her future hold and an entire generation of Flint children?



JOIN THE MSP

Subject: DM/EC/JA/RB/JW/JR/HH/SW/DM/DW/NL/GL/DP or DA or ML re Flint next steps
Location: Governor's Conference Room - 2nd Floor Romney (call in number below)

Start: Wed 10/14/2015 11:30 AM
End: Wed 10/14/2015 12:00 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Agen, Jarrod (GOV)
Required Attendees: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Baird, Richard (GOV); Walsh, John (GOV); Redford, James (GOV); Hollins, Harvey (GOV); Wurfel, Sara (GOV); Murray, David (GOV); Wyant, Dan (DEQ); Lyon, Nick (DHHS); Lasher, Geralyn (DHHS); Posthumus, Dick (GOV); Ackerman, Darin (GOV); Lange, Michelle (GOV); Rospond, Laurie (GOV); Thomet, Ruth (GOV); Thelen, Mary Beth (DEQ); Grijalva, Nancy (DHHS); Hall, Jean (GOV); VanSickle, Michele (GOV); Clayton, Stacie (GOV)
Optional Attendees: Wells, Eden (DHHS)

MDHHS Action Plan Flint EBL.DO...

Conference Number - [redacted]
Access Code – [redacted]
Host Code - [redacted] (Jarrod to host)

Michigan Department of Community Health (MDHHS) Flint Water Action Plan

Action	Local Lead	MDHHS Lead	Tasks
Filter/Water Distribution	Tamara Brickley (Genesee County Health Department-GCHD)	Sheryl Thompson, MDHHS	- Coordination of distribution (GCHD) - Identify at-risk sub-groups (GCHD) - Tracking filters- uniform registry held by GCHD - Ordering filter replacements (MDHHS)
Blood Testing	Tony LaRocco (GCHD) Possible partners: - Hurley - Great Flint Health Coalition - MIHP - LHD - Schools	Dr. Eden Wells/ Nancy Peeler (CLPPP)	- Test all o Students 0-16 o Priorities: ▪ 3 schools ▪ 2 zip codes ▪ ages 0-15 - Convene meeting with GCHD and all potential partners (MDHHS) o Partner with schools- information about testing sites options distributed through school districts to parents o Partner with Great Flint Health Coalition-network to develop testing sites and information about testing to healthcare providers o Partner with Hurley/McClaren/Genesys o Partner with MIHP/Home Visiting Program - Confirm that the state lab has capacity to handle increase in tests- CONFRIMED
Case Management Follow Up	Tony LaRocco (GCHD)	Eden Wells/ Nancy Peeler (CLPPP)	- Identification of all current positives- confirmatory testing for > 5 mcg/dl (as of April 2014) - Maintain registry of all tests performed (-/+) - Follow-up all cases >5 mcg/dl with the CLPP Case Management protocol
Elevated Blood Level Investigations(all > 5 mcg/dl)	Dawn Hallwood (GCHD)	Linda Dykema	- Secure financial resources necessary to support environmental health response - Follow-up CLPPP to see if immediate funds available - Recommendation to contract with Lead Investigation company thru SEMHA-

			licensed investigators
Communications	Hilda McShane (GCHD)	Geralyn Lasher	- Daily MDHHS and GCHD phone calls (3PM) - Provide provider education- links sent for Governor's site to GCHD 10/12 - Provide public education - Provide risk education - Provide links with lead prevention information to Flint

From: Allard, Claire (GOV)
Sent: Tuesday, June 02, 2015 10:03 AM
To: Redford, James (GOV); Weber, Travis (GOV)
Subject: FW: Local Government Update
Attachments: Loc Gov Update May 2015.docx

As promised.

Thanks,
Claire

From: Workman, Wayne (TREASURY)
Sent: Friday, May 15, 2015 12:42 PM
To: Scott, Allison (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV)
Cc: Baird, Richard (GOV); Wurfel, Sara (GOV); Wisniewski, Wendy (GOV); Khouri, Nick (TREASURY); Saxton, Thomas (Treasury); Koryzno, Edward (Treasury); Roberts, John (DTMB); Allard, Claire (GOV); Workman, Wayne (TREASURY)
Subject: Local Government Update

Allison, Dennis, and Beth: Attached is the periodic update on distressed local governments. Please pass on to the Governor as appropriate. If you have any questions, please don't hesitate to call. Wayne

3500 (Rev. 01-11)

STATE OF MICHIGAN
DEPARTMENT OF TREASURY

RICK SNYDER
GOVERNOR

NICK A. KHOURI
STATE TREASURER

DATE: May 15, 2015

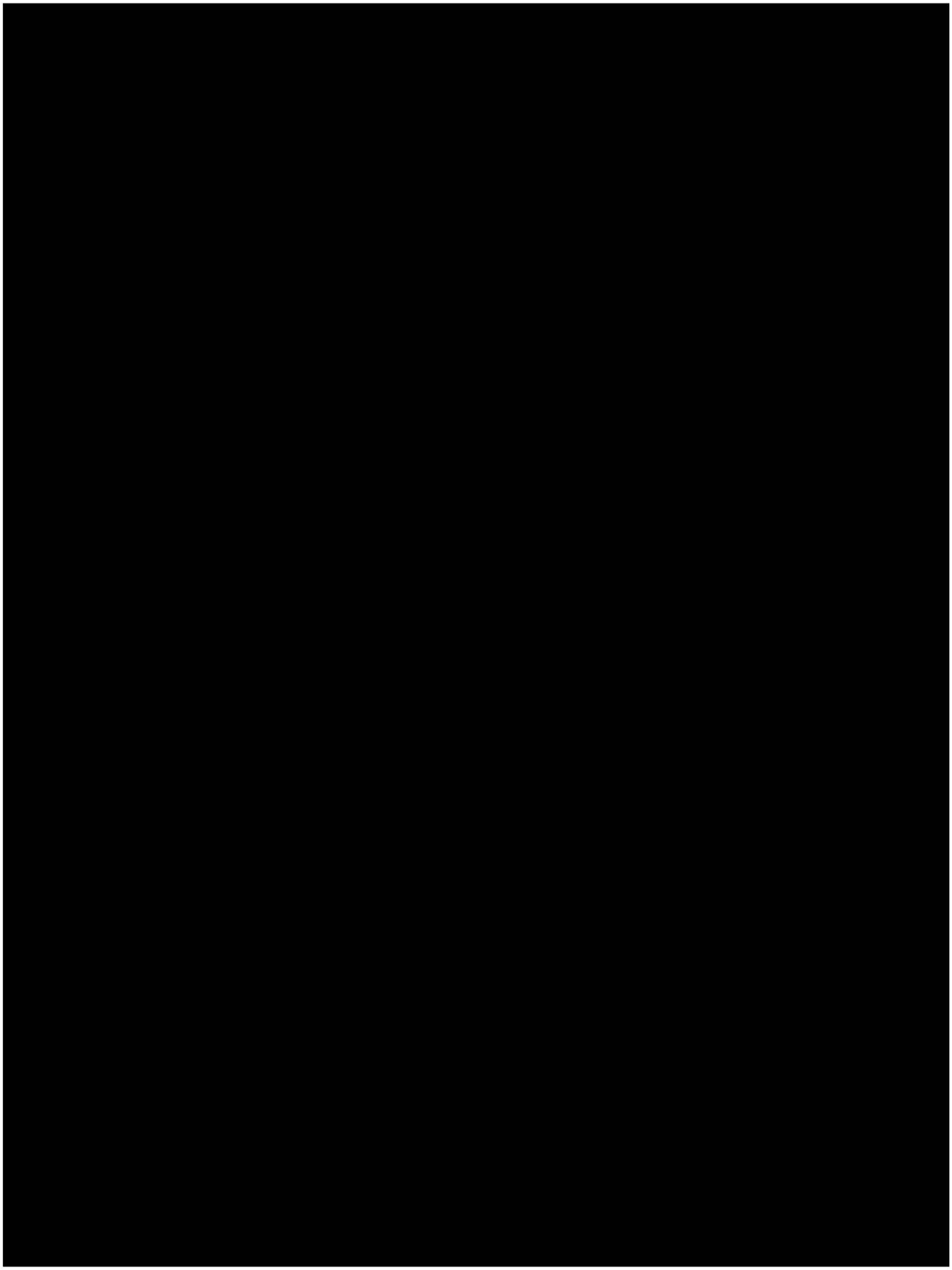
TO: Rick Snyder, Governor

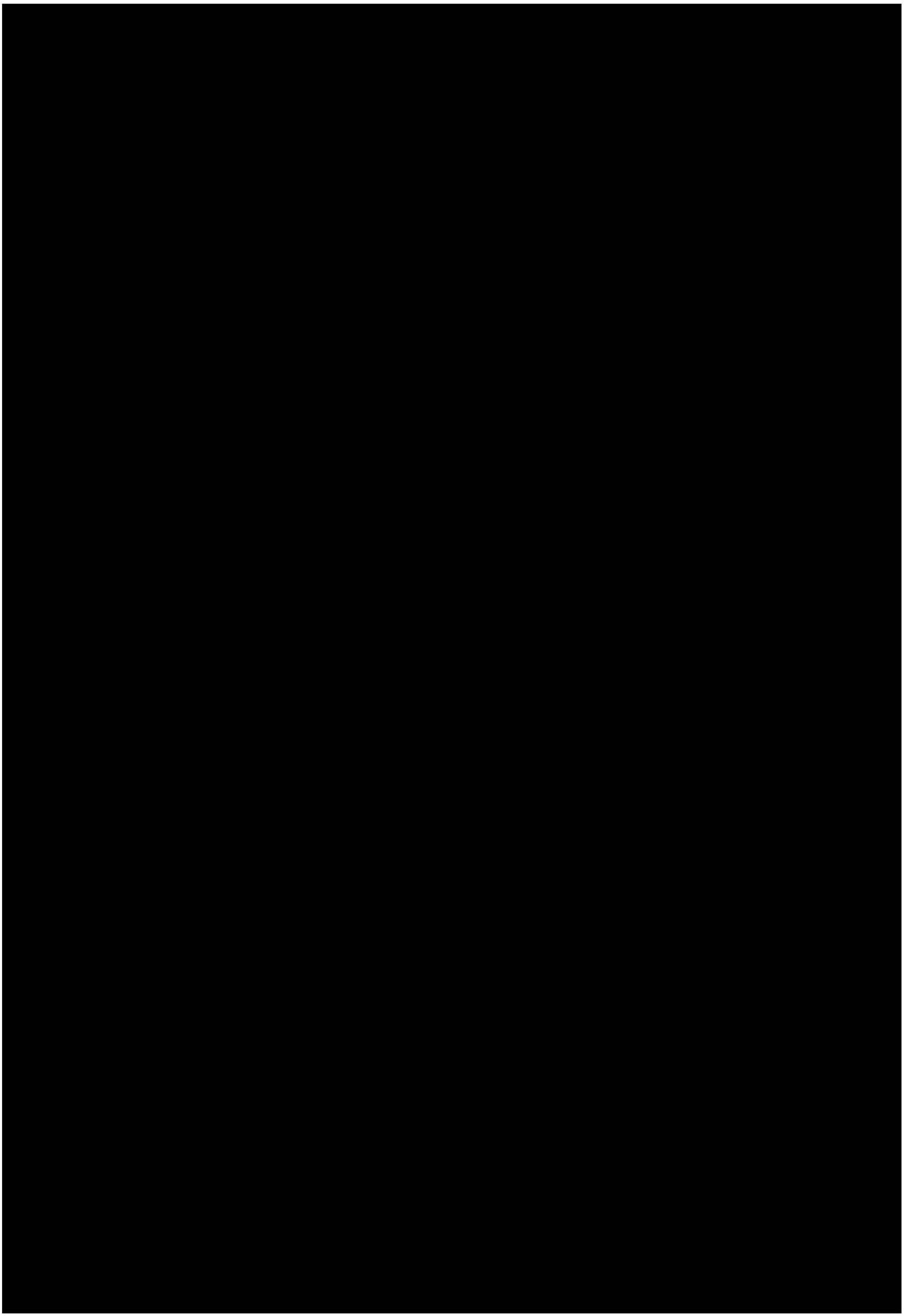
FROM: Wayne Workman, Deputy State Treasurer

SUBJECT: Status of Financially Stressed Local Governments

EMERGENCY MANAGER

[redacted]





[redacted]

Flint

RTAB Appointed: April 29, 2015

RTAB Members: Frederick Headen, Brian Larkin, David McGhee, Beverly Walker-Griffea, Robert McMahan

Recent Developments

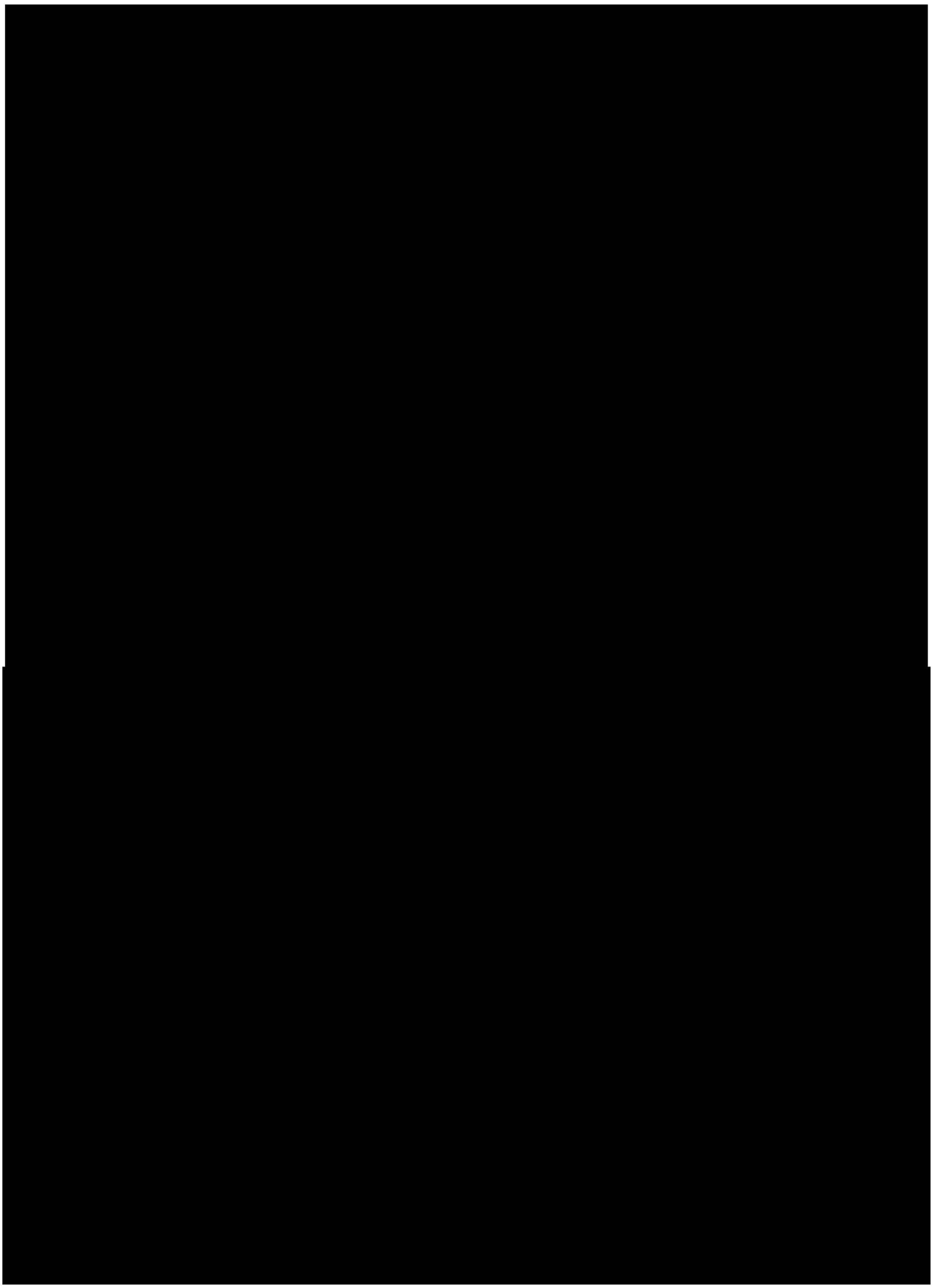
- [redacted]

- EM Gerry Ambrose issued an EM Order on March 19, 2015 that restructured the State Revolving Fund loans and provides approximately $2.2M, allowing the city to invest in capital improvements to the water system.
- [redacted]
- [redacted]
- The City of Flint continues to inform residents that it is in violation of the Clean Water Standards Act, after unsafe levels of trihalomethanes (TTHM, a disinfectant by-product) were found in the water. Recent testing by the Michigan Department of Environmental Quality (MDEQ) Testing Lab showed that the total TTHM levels for the month of March are well within the Environmental Protection Agency (EPA) guidelines for safe water. However, because EPA regulations require that the four month average for all testing sites be within certain guidelines, the city is still considered to be non-compliant by the MDEQ. Monthly testing remains ongoing and is being conducted by several parties.
- The city hired Veolia to provide an analysis of the water system, including recommended improvements and associated costs. Recommendations included water plant improvements, distribution system improvements, new policies and procedures, and better communication with customers. The city is installing a $1.5M granulated active-charcoal filter to improve water quality. This filter installation will be completed in mid-July.
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

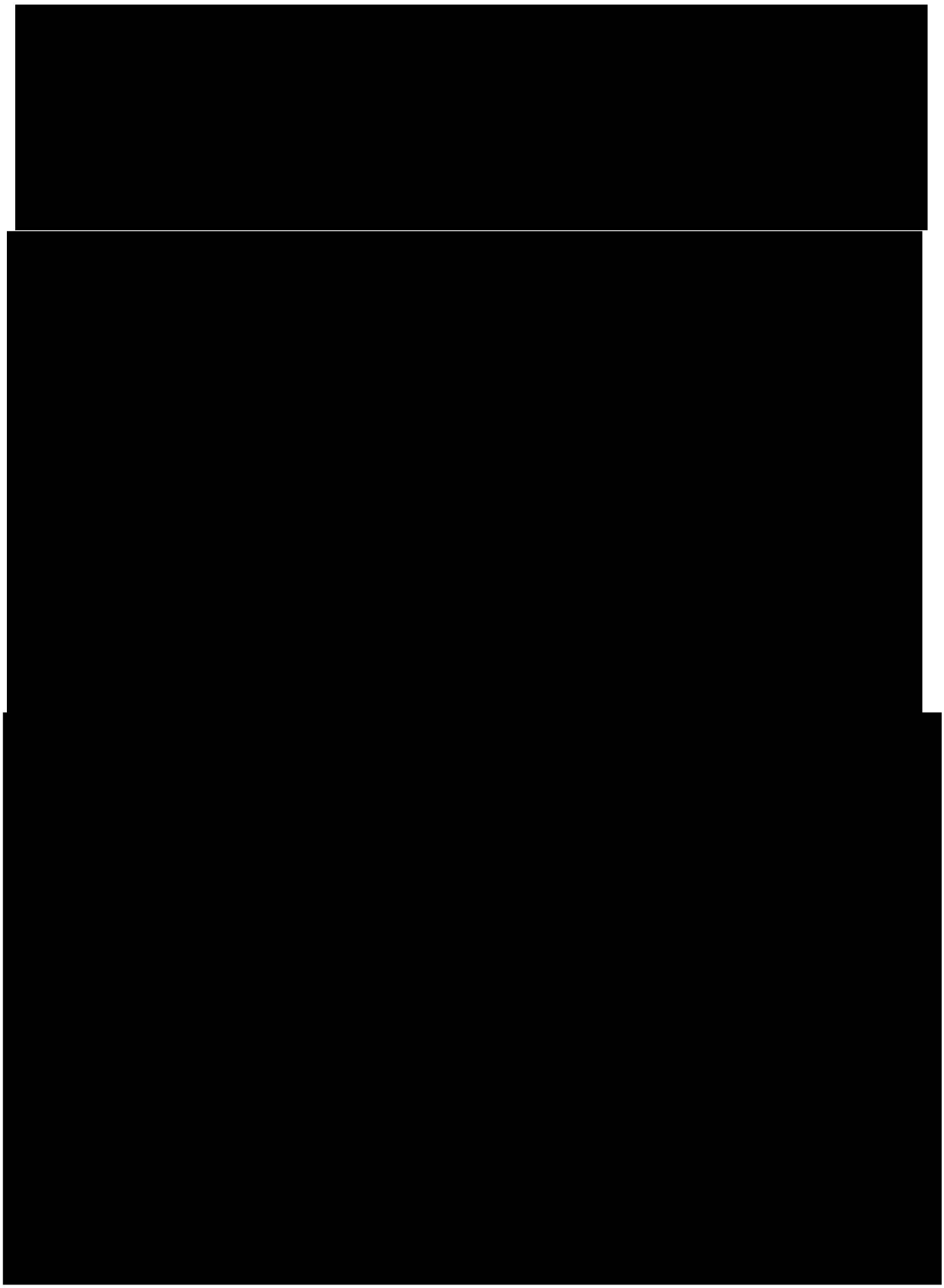
Significant Actions/Issues

- On February 3, 2015, the city was awarded $2M through the Financially Distressed Cities, Villages, and Townships Grant Program. These funds will be used to enhance the city's water system through improved waste management, leak detection, and pipe assessments. Pre-planning for implementation of these activities is underway.
- [redacted]

[redacted]



CONSENT AGREEMENT



[redacted]

NEUTRAL EVALUATION

[redacted]

[redacted]

OTHER COMMUNITIES

[redacted]

From: Wurfel, Sara (GOV)
Sent: Friday, August 07, 2015 4:01 PM
To: Redford, James (GOV)
Cc: Muchmore, Dennis (GOV); Hollins, Harvey (GOV); Clement, Elizabeth (GOV); Murray, David (GOV); Agen, Jarrod (GOV)
Subject: RE: PRESS RELEASE: Statement RE Shears vs. CoF Decision

Story just posted. It has to do with hot topic of Flint water. Looping in Dave and Jarrod too.

Judge orders Flint to cut water rates 35 percent in sweeping injunction
http://www.mlive.com/news/flint/index.ssf/2015/08/flint_ordered_to_cut_water_rat.html

FLINT, MI -- Less than four months after the city's financial emergency ended, a judge's order has city officials talking about a potential bankruptcy all over again ...

From: Wurfel, Sara (GOV)
Sent: Friday, August 07, 2015 3:43 PM
To: Redford, James (GOV)
Cc: Dennis Muchmore; Hollins, Harvey (GOV); Beth Clement
Subject: FW: PRESS RELEASE: Statement RE Shears vs. CoF Decision
Importance: High

This isn't the retiree health care case, right?

Any details or insight we have and how big of deal this may be on city's finances and next steps/state involvement?

Also looping in quick with Treasury.

From: Jason Lorenz [mailto:jlorenz@cityofflint.com]
Sent: Friday, August 07, 2015 2:32 PM
Subject: PRESS RELEASE: Statement RE Shears vs. CoF Decision

For Immediate Release

Statement from the City Attorney Regarding Court's Ruling in *Shears vs City of Flint*

Flint, Michigan – August 7, 2015 – In response to the 7th Circuit Court's ruling today in the case of *Shears vs City of Flint*, the following statement has been issued by City Attorney Pete Bade:

"Today's ruling is striking in terms of both its deviation from Michigan law, as well as the immediate financial harm it will cause the City of Flint. This will have a devastating financial impact. The City will immediately seek a stay of this order and review by the Court of Appeals."

-Pete Bade

City Attorney

City of Flint

–END–

-Jason Lorenz
Public Information Officer
City of Flint
(810) 237-2039 (Office)
[redacted]
jlorenz@cityofflint.com

From: Brader, Valerie (LARA)
Sent: Thursday, October 01, 2015 11:12 AM
To: Wyant, Dan (DEQ)
Cc: Redford, James (GOV)
Subject: ACLU and Flint Water

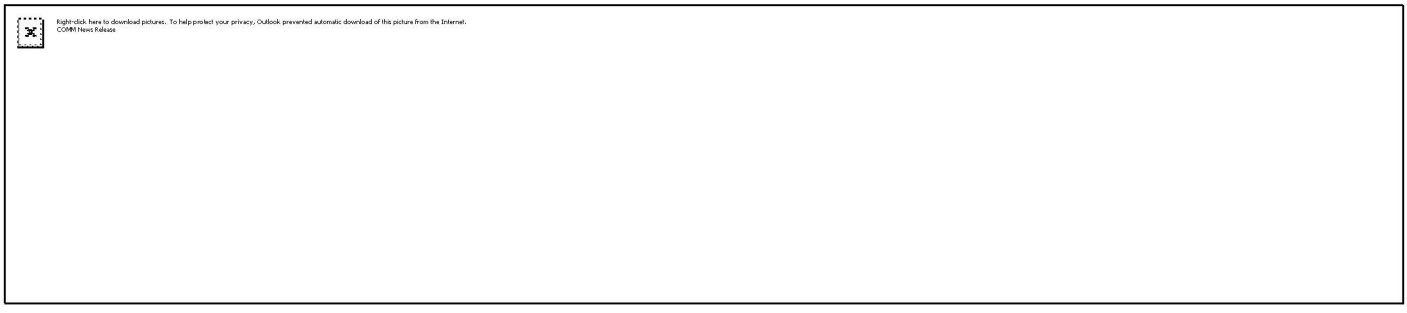
Dan – FYI. I used to commute to Detroit with Mike Steinberg, who is head of litigation for the ACLU in Michigan. He just called to say they may be getting involved with the Flint case to see if they can force Flint to go back to DWSD. He wanted to call and see if I was involved so they could have a conversation before they come in. I said I had no more involvement and said he should talk to you – that I would let you know and give him your number. He is pretty straight-up in terms of letting you know where they will go and you can trust him if there is a settlement discussion to play it straight. That said, he has been with the ACLU for years, so you know where they are likely to be and be able to go. His cell number is [redacted]

--Valerie

Valerie J.M. Brader
Executive Director, Michigan Agency for Energy
Office: 517-284-8335
braderv@michigan.gov

MI Energy
Michigan Agency for Energy

From: GOV Newsroom <govnewsroom@govsubscriptions.michigan.gov>
Sent: Wednesday, October 21, 2015 2:07 PM
To: Redford, James (GOV)
Subject: NEWS RELEASE: Gov. Rick Snyder announces Flint Water Task Force to review state, federal and municipal actions, offer recommendations



Contacts: Sara Wurfel or Dave Murray
517-335-6397

FOR IMMEDIATE RELEASE
Wednesday, Oct. 21, 2015

Gov. Rick Snyder announces Flint Water Task Force to review state, federal and municipal actions, offer recommendations

Experts in public health, water management, environmental protection to focus on steps to protect residents

LANSING, Mich. – Gov. Rick Snyder today announced the creation of an independent advisory task force charged with reviewing actions regarding water use and testing in Flint and offer recommendations for future guidelines to protect the health and safety of all state residents.

Task force members include experts in public health and medicine, water management, and environmental protection from both sides of the aisle, and will be co-chaired by Ken Sikkema of Public Sector Consultants and Chris Kolb, of the Michigan Environmental Council. Also serving will be Dr. Matthew Davis of the University of Michigan Health System, Eric Rothstein, of the Galardi Rothstein Group and Dr. Lawrence Reynolds of Mott Children's Health Center in Flint.

"Transitioning back to the Detroit Water and Sewerage Department-Great Lakes Water Authority is a good first step to protecting public health in Flint, but it's not the last step," Snyder said. "Bringing in outside experts to evaluate our actions and help monitor and advise on potential changes to law, procedures and practices will be key to continuing work on the comprehensive action plan and ensuring safe drinking water for all the residents in Flint and all of Michigan."

Snyder said the administration will fully cooperate with task force members, saying he wants an unbiased report focusing on steps taken in the past and recommendations that could improve practices to ensure all residents have access to safe, clean water.

Ken Sikkema is a senior policy fellow at Public Sector Consultants, where he specializes in public finance, environment, and energy policy. Prior to joining the firm, Sikkema served in both the Michigan House and Senate, culminating with four years as Senate majority leader. He has also served as both an adjunct and visiting professor at Grand Valley State University.

Chris Kolb is president of the Michigan Environmental Council, a statewide coalition of 70 environmental, public health and faith-based nonprofit groups. Before joining the MEC, Kolb represented Ann Arbor in the state House for six years and served six years on the Ann Arbor City Council. He has been president of the MEC for six years.

Matthew Davis, M.D., M.A.P.P., is professor of pediatrics and internal medicine at the University of Michigan Health System and professor of public policy at the Gerald R. Ford School at the University of Michigan, having joined the faculty in 2000. Davis also is a professor of health management and policy at the School of Public Health. He previously served as the chief medical executive of the Michigan Department of Community Health/Department of Health and Human Services.

Eric Rothstein is a national water issues consultant and principal at the Galardi Rothstein Group. He served as an independent advisor on the creation of the Great Lakes Water Authority. Rothstein also has served as Jefferson County, Alabama's rate consultant and municipal adviser for litigation related to the county's bankruptcy and issuance of $1.7 billion in sewer warrants and led strategic financial planning for the City of Atlanta's Department of Watershed Management. He has more than 30 years of experience in water, wastewater and stormwater utility finance and rate-making assessments.

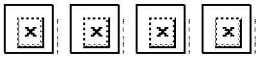
Lawrence Reynolds, M.D., is a pediatrician in Flint who serves as president of the Mott Children's Health Center. He received his medical degree from Howard University College of Medicine and has been in practice for 36 years. He has served as president of the Genesee County Medical Society and the Michigan Chapter of the American Academy of Pediatrics. He has been honored for his humanitarian and advocacy efforts on behalf of children from the Community Foundation of Greater Flint.

Snyder has said reconnecting with the authority is a critical step to resolving water quality issues and addressing related health concerns. It will not immediately resolve the city's problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control.

To best protect public health, state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead exposure. The Michigan Departments of Environmental Quality and Health and Human Services are continuing to provide free water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

####

STAY CONNECTED:



This email was sent to redfordj@michigan.gov on behalf of: The Executive Office of the Governor · 111 South Capitol Avenue · Lansing, MI 48909 · 517-335-7858

From: Thomet, Ruth (GOV)
Sent: Monday, November 16, 2015 9:08 AM
To: Stoken, Laura (GOV); Redford, James (GOV)
Subject: RE: Safe Drinking Water Act Notice of Intent to Sue

Thank you, Laura. And you are correct – these come to us when the Governor and/or SOM are a named party.

From: Stoken, Laura (GOV)
Sent: Monday, November 16, 2015 9:03 AM
To: Redford, James (GOV) <RedfordJ@michigan.gov>
Cc: Thomet, Ruth (GOV) <ThometR@michigan.gov>
Subject: FW: Safe Drinking Water Act Notice of Intent to Sue
Importance: High

Good morning sir,

Please see below (attached) correspondence that came into the Governor's public facing e-mail box. I am forwarding onto you for action determination.

Please let me know if I am sending it you by mistake.

Thanks,

Laura

From: Chaudhary, Dimple [mailto:dchaudhary@nrdc.org]
Sent: Monday, November 16, 2015 9:00 AM
To: Snyder, Rick (GOV) <[redacted]
Subject: Safe Drinking Water Act Notice of Intent to Sue

Dear Governor Snyder,

Attached please find a Notice of Intent to sue under the federal Safe Drinking Water Act for failure to control lead in drinking water in Flint, Michigan, and failure to assist Michigan schools with lead testing and remediation. We have also sent you the Notice and a CD of exhibits today by certified mail, return receipt requested.

Best regards,

Dimple Chaudhary

Dimple Chaudhary, Senior Attorney*
Natural Resources Defense Council
1152 15th Street NW, Suite 300, Washington, DC 20005
Tel. 202.289.2385 | email: dchaudhary@nrdc.org

*admitted in the District of Columbia and New York

PRIVILEGE AND CONFIDENTIALITY NOTICE
This message is intended only for the addressee and may contain information that is privileged, confidential, and exempt from disclosure under law. If you are not the intended recipient, please notify me immediately by email and delete the original message.

From: Becker, Timothy (DHHS)
Sent: Wednesday, December 30, 2015 7:49 PM
To: Baird, Richard (GOV)
Cc: Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Kelenske, Chris (MSP); Holland, Meegan (GOV); Murray, David (GOV); Redford, James (GOV); Creagh, Keith (DNR); Roberts, John (DTMB); Etue, Kriste (MSP); Lyon, Nick (DHHS)
Subject: Re: Attorney Client Work Product (Draft), Privileged and Confidential

Re 4 on costs: our budget folks at MDHHS completed today. I will forward that along with my comments when I get to my laptop.
Tim

Sent from my iPhone

On Dec 30, 2015, at 6:57 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:

> Team:
>
> Today Harvey and I met with the Flint Water Task Force. It was a good meeting. People were pleased with the G's statement from the prior day. Captain Kelenske joined us and we had a very good discussion about moving forward with the creation of the Flint Water Crisis Agency Coordinating Committee (FIACC). Tim Becker and Captain Kelenske provided me with a fair amount of input. I also read the City of Flint Incident Action Plan for a State of Emergency which Chris received today (enclosed for those who wish to read it as well). I have distilled all of this into a two page plan that I want your edits and comments on and a one page organizational chart (now presented in the "governor's colors" according to our fine people in Communications). Spoiler alert—I made Captain Kelenske Vice Chair of the whole shebang (with the Colonel's blessing) so Harvey wouldn't get lonely.
>
> Here is my ask of you:
>
> 1) Within 24 (sooner if you can) hours give me your comments and input
> 2) Tomorrow I will turn around a final document for Jarrod to review with the Governor either New Year's Day or Saturday
> 3) Ideally, Governor will approve Harvey sending it to Mayor Weaver Saturday (Sunday latest)
> 4) Mayor needs to know that this is what the Governor wishes to discuss at the meeting January 7 along with financial resources that we still need some estimates on cost from DHHS for
> 5) Meegan and Dave need to noodle how best to get out front with this and change the narrative focus on Monday's Genesee County declaration of emergency
>
> I know we are all working way too hard for what should be a rest and recharge period but I do appreciate everyone's efforts and I know the Boss really does as well.
>
> Regards,
>
> Rich
>
> <A Proposal to Create the Flint Water Inter.docx>

<IA Coord Com Org Chart.jpg>
<IAP Flint Water 2015-12-29.pdf>

From: Clement, Elizabeth (GOV)
Sent: Thursday, March 26, 2015 6:31 PM
To: Redford, James (GOV)
Cc: Muchmore, Dennis (GOV)
Subject: Re: Flint water

Thank you, Jim. We definitely need to explore to see if this is possible.

Sent from my iPhone

On Mar 26, 2015, at 5:22 PM, Redford, James (GOV) <RedfordJ@michigan.gov> wrote:

> Two thoughts after discussions with Valarie:
>
> - Cost to re-connect Flint to DWS seems higher than they should be. She thinks price estimates may be inflated so as to continue to show it was necs to detach from DWS in first place
> - Thinks headway could be made by our DEQ director engaging in process/discussions because DSW is in need of a state issued permit for something they would like to/ need to be doing and DEQ could ease the process if DSW were to help substantially in Flint H2O issue
>
> I do not know whether these observations are as visionary as if proclaimed by The Oracle of Delphi herself or if there is no moment at all to the assessments.
>
> I just pass them on as observations, that if accurate , could lead to us being able to get to a good Flint solution on water in place until they are up and running with a new system themselves.
>
> Jim
>
> JAMES ROBERT REDFORD
> Legal Counsel
> Executive Office of the Governor
> 111 South Capital Avenue
> P.O. Box 30013
> Lansing , Michigan 48909
> 517.241.5630

From: Saxton, Thomas (Treasury)
Sent: Thursday, September 03, 2015 5:36 PM
To: Redford, James (GOV); Muchmore, Dennis (GOV)
Cc: Workman, Wayne (TREASURY)
Subject: FW: Flint Water
Attachments: Flint Water Ltr 3-3-15.pdf; Flint Water memo 2-11-15.pdf

Gentlemen… in the attached (which you have likely seen before) is a description of the cost to reconnect to DWSD. I assume/hope no one is still seriously considering that option but if you need anything more give us a call.

CITY OF FLINT

OFFICE OF THE EMERGENCY MANAGER

Gerald Ambrose
Emergency Manager

TO: Wayne Workman, Deputy Treasurer
Treasury Department
State of Michigan

FROM: Jerry Ambrose, Emergency Manager
City of Flint

DATE: March 3, 2015

As the Emergency Manager for the City of Flint, I am charged with restoring the City government to financial solvency, and working to assure that the City moves forward on a financially sustainable basis. The steps taken over the past three years have been difficult. Taxes and fees have been raised, services and workforce reduced, and ongoing costs, including legacy costs, have been constrained.

The current controversy surrounding the provision of water, and the path for resolution, has a potentially significant impact on the progress that is being made. I am satisfied that the water provided to Flint users today is within all MDEQ and EPA guidelines, as evidenced by the most recent water quality results conducted for MDEQ. We have a continuing commitment to maintain water safety and to improve water quality, and have dedicated resources to assure this commitment will be made.

The oft-repeated suggestion that the City should return to DWSD, even for a short period of time, would, in my judgment, have extremely negative financial consequences to the water system, and consequently to the rate payers. By the most conservative estimates, such a move would increase costs by at least $12 million annually, with that amount achieved only by eliminating virtually all budgeted improvements in the system. For a system with Unrestricted Assets of only $740,745, according to the June 30, 2014 audited financial statements, the only recourse within the City's control would be to increase revenues significantly. And in my judgment, that would come from raising rates for water by 30% or more . Further, changing the *source* of the city's water would not necessarily change any of the *aesthetics* of the water, including odor and discoloration, since those appear to be directly related to the aging pipes and other infrastructure that carry water from the treatment facility to our customers.

This direction of discussion also deviates from what, in my judgment, should be the focus: How can we not only operate and maintain a system to assure the delivery of safe and quality water dependably, but significantly reduce the cost of water and sewer to the users? At an average of $149 per month for water and sewer service for a residential user, the cost is extremely high in comparison to surrounding areas, as well as most areas across the state, and creates a significant financial burden for many users. In my judgment, we should all be concentrating on how to reduce rates by 50% or more. Unfortunately, there are no easy or evident answers, and continuation of the status will be an impediment to the sustainable recovery of the City of Flint. It is a conversation that I expect we will have with the recently created Water Quality Advisory Committee.

My reasoning for this conclusion is as follows:

One of the decisions made in the context of beginning to eliminate deficits and to restore financial stability to the City of Flint was to increase water and sewer rates significantly – the only choice available to financially stabilize a system that as of June 30, 2012, had a deficit of $8,758,091. Another was to leave DWDS for the KWA because it offered the opportunity to lower future rate increases. A third decision was to utilize the Flint River on an interim basis when DWSD unilaterally terminated the City's contract for water purchase. That decision was made because it also offered an immediate cost savings opportunity which translated into the ability to upgrade the Water Treatment Plant without having to seek financing. It was a reasonable decision because of our experience in using the river in a back-up capacity, including test runs on a quarterly basis for several decades.

Unfortunately, the switch to the river as a primary source was more challenging than anticipated, and the harsh winter of 2013-2014 resulted in much more damage to the aging water infrastructure than in previous years. The result was the issuance of required notices that water exceeded established guidelines for safety as it could affect certain vulnerable populations, and some users of the system experienced unpleasant odors and discoloration. Some users also appeared to have had some negative reactions to the new source of water. However, as soon as the test results were known, City staff took immediate actions to address the concerns. These actions are evidenced today by the fact that MDEQ has certified that our most recent testing shows water from all testing sites to be well within acceptable guidelines. Additionally, the City is continuing to taking the necessary actions to assure that the water supply remains safe and that water quality continues to improve.

As the City has moved to address the situation, the suggestion continues to be made that the City should re-engage with DWSD and purchase water at least until the KWA pipeline is supplying water. As evidenced by the most recent letter from DWSD, such a decision would immediately increase the City's cost by $846,700 per month, or $10,160,400 per year, just for the fixed cost portion of the price. The actual *purchase* of water would be an additional fee, and dependent upon

the quantity purchased. We estimate the actual water purchase cost to average more than $1 million per month, for a grand total of approximately $22 million per year. Finally, the DWSD offer is conditioned upon the City (or presumably the KWA) agreeing to negotiate a long term contract (30 years) for back-up.

The $22 million annual estimate of increased costs to purchase water from DWSD would be minimally offset by an approximate $3 million in reduced operating costs, and could be further offset by an additional $9 million, but only if all funding for capital improvements to the system are eliminated. To eliminate all funding dedicated to repairing, stabilizing, and improving the system would be totally irresponsible and would have long term negative consequences to the City and to future rate payers.

As you are aware we have recently brought in outside expert assistance to evaluate the steps we have taken to assure that the water is safe and to continue to improve water quality. We are expecting specific recommendations within the next few weeks, and are committed to implementing those recommendations in a timely manner. Many steps have already been taken. I am confident that implementing their recommendations will assure a continuing supply of safe water as well as improved quality, and at far less cost than re-engaging DWSD.

We have also created a 40-member Water Advisory Committee and a 13-member Technical Advisory Committee to assure two-way communication with the public and users of the system. Those committees will begin to meet this week, and we look forward to answering their questions and receiving their input.

It is unfortunate that problems and concerns with quality have arisen, and we are working every day to address the issues that caused them. Maintaining safe water and improving quality is a top priority as we work to make the City of Flint an attractive place to live, work, study, and play.

72 (Rev. 11-13)

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

R. KEVIN CLINTON
STATE TREASURER

DATE: February 11, 2015

TO: Tom Saxton, Chief Deputy Treasurer

FROM: Wayne Workman, Deputy State Treasurer

SUBJECT: City of Flint Water Rates

Attached and below is information regarding the increase in water and sewer rates for the City of Flint since 2010.

- The data shows the significant deficit position of the water fund which was not rectified until 2013 when water rates were increased by 26%. The data also shows the lack of capital investment for a system as old as Flint.

- This condition is acknowledged in the City's recently adopted Capital Improvements Plan which identified approximately $50M in needed capital improvements over the next several years. This deficiency was also noted in the rate study commissioned by the City of Flint in 2014.

- According to the City, if Flint reconnected to DWSD for the next 18 months, the estimated monthly cost would be more than $1M per month totaling approximately $18M. This includes a fixed monthly charge of $846,700 plus the cost of actual water usage, minus the cost of operational expenditures at the Water Treatment Plant. Even with the elimination of future capital improvements, most of the additional cost would need to be funded with an additional increase to existing rates. Such an increase could approach 30%.

- The option of purchasing DWSD water from the County would be on parity with purchasing water directly from DWSD.

- The KWA previously advised the City that the connection to KWA may take place in mid-2016, but has now stated that weather conditions permitting, the connection could be made as early as December 2015.

- The $8M capital costs to upgrade the Water Treatment Plant was made to be able to treat both river water and KWA water. This upgrade has been funded with the cost reduction in operating costs achieved by not buying water from DWSD during the interim period.

- As you are aware, the City has retained Veolia as an outside water consultant to assist in maintaining the safety and improving the quality of water produced by its water system, and their initial analysis is due to be completed within the next two weeks. In addition, the City's current budget includes $2M for replacement of a 2-mile pipeline segment that is anticipated to significantly address some of the current water issues.

Average monthly bill in 2015 - note that water and sewer are not billed separately; the charges are included within the same bill regardless of water usage.

Water service charge	$22.90
Sewer service charge	$34.48
Total service charge	$57.38
Per unit rate:	
Water	$ 7.92
Sewer	$ 5.17
Total per unit	$13.09

Average family of four uses 7 units per month.
Their bill for usage would be: 7 x 13.09 = 91.63 + 57.38 service charge = $149.

If additional information is desired, please let me know.

City of Flint Water Rate History

Year (Date Effective)	Average Monthly Water/Sewer Bill*	Percentage Change in Water/Sewer Rates	Water Fund** Total Operating Revenue	Water Fund** Unrestricted Net Position	Water Fund** Capital Improvements
2010	$64	12%	$31,956,754	-$5,795,973	$2,091,160
1/15/2011	$82	29%	$36,762,663	-$12,443,265	$1,403,916
9/16/2011	$111	35%			
7/1/2012	$111	26%	$44,854,439	-$8,758,091	$755,681
2013	$140	0%	$49,903,868	$834,447	$147,462
07/01/13 to 06/30/14	$140	0%	$43,552,152	$760,745	$3,301,700
07/01/14 to 06/30/15	$149***	6%	N/A	N/A	N/A

Note* Water rate information is based on average usage of 7 units per month with a 5/8" residential remote meter.

Note** Water fund information was compiled from the City of Flint's CAFR filed with the Michigan Department of Treasury.

Note*** Billing breakdown contained in attached memo.

From: Hollins, Harvey (GOV)
Sent: Thursday, September 24, 2015 12:06 PM
To: Clement, Elizabeth (GOV); Baird, Richard (GOV); Agen, Jarrod (GOV); Redford, James (GOV)
Subject: Fwd: New ACLU video gets tough with Flint officials over lead levels | Blogs | Detroit Metro Times

Best,
Harvey

Begin forwarded message:

> **From:** "Hollins, Harvey (GOV)" <hollinsh@michigan.gov>
> **Date:** September 24, 2015 at 12:03:01 PM EDT
> **To:** "Murray, David (GOV)" <MurrayD1@michigan.gov>
> **Cc:** "Wurfel, Sara (GOV)" <Wurfels@michigan.gov>, "Clayton, Stacie (GOV)" <claytons3@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>
> **Subject: Re: New ACLU video gets tough with Flint officials over lead levels | Blogs | Detroit Metro Times**
>
> Senator Ananich has formed a new coalition to speak on the water issues in Flint. Hurley hospital will be a member of that coalition. This coalition may be competitive with the existing Clean Water Coalition where a lot of the grassroots types participate. Hurley will also work to get more residents water filters, and that may be apart of the announcement today.
>
> On Sep 24, 2015, at 11:37 AM, Murray, David (GOV) <MurrayD1@michigan.gov> wrote:
>
> > Harvey,
> >
> > We're hearing from MLive that Hurley Hospital has called a 3 p.m. press conference to discuss the lead levels in blood collected from children. I'm working to get the report from Hurley ASAP. Working with Geralyn on a response.
> >
> > Dave
> >
> > -----Original Message-----
> > From: Hollins, Harvey (GOV)
> > Sent: Thursday, September 24, 2015 11:36 AM

To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>

Cc: Clayton, Stacie (GOV) <claytons3@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>

Subject: Re: New ACLU video gets tough with Flint officials over lead levels | Blogs | Detroit Metro Times

Sarah--per our discussion yesterday, what is the status of announcing the DEQ action to address the water quality in Flint?

-HH

> On Sep 24, 2015, at 11:03 AM, Clayton, Stacie (GOV) <claytons3@michigan.gov> wrote:
>
> http://m.metrotimes.com/Blogs/archives/2015/09/23/new-aclu-video-gets-tough-with-flint-officials-over-lead-levels
>
> Stacie Clayton
>
> Sent from my iPhone

From: Brader, Valerie (LARA)
Sent: Thursday, October 01, 2015 11:21 AM
To: Wyant, Dan (DEQ)
Cc: Redford, James (GOV)
Subject: RE: ACLU and Flint Water (Correction)
Attachments: Michael Steinberg.vcf

WRONG CELL. Sorry Dan, was copying wrong number of my cell phone. Here is Mike's contact card.

From: Brader, Valerie (LARA)
Sent: Thursday, October 01, 2015 11:12 AM
To: Wyant, Dan (DEQ)
Cc: Redford, James (GOV)
Subject: ACLU and Flint Water

Dan – FYI. I used to commute to Detroit with Mike Steinberg, who is head of litigation for the ACLU in Michigan. He just called to say they may be getting involved with the Flint case to see if they can force Flint to go back to DWSD. He wanted to call and see if I was involved so they could have a conversation before they come in. I said I had no more involvement and said he should talk to you – that I would let you know and give him your number. He is pretty straight-up in terms of letting you know where they will go and you can trust him if there is a settlement discussion to play it straight. That said, he has been with the ACLU for years, so you know where they are likely to be and be able to go. His cell number is [redacted]

--Valerie

Valerie J.M. Brader
Executive Director, Michigan Agency for Energy
Office: 517-284-8335
braderv@michigan.gov

MI Energy
Michigan Agency for Energy

To: GovCalendar[redacted]; Hollins, Harvey (GOV)[hollinsh@michigan.gov]; Clayton, Stacie (GOV)[claytons3@michigan.gov]; Muchmore, Dennis (GOV)[muchmored@michigan.gov]; Clement, Elizabeth (GOV)[clemente@michigan.gov]; Wisniewski, Wendy (GOV)[wisniewskiw@michigan.gov]
Required Attendees: Hollins, Harvey (GOV); Clayton, Stacie (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Wisniewski, Wendy (GOV)
Optional Attendees: Agen, Jarrod (GOV)
Location: Governor's SE MI Office
Importance: Normal
Subject: RDS – Urban Initiatives Update
Start Date/Time: Mon 9/21/2015 6:00:00 PM
End Date/Time: Mon 9/21/2015 6:30:00 PM
Recurrence Pattern: None

Agenda:

I. [redacted]

II. [redacted]

III. [redacted]

IV. Flint Water

Michael Steinberg
American Civil Liberties Union

+1 (313) 578-6814 Work
[redacted]
msteinberg@aclumich.org
60 W. Hancock
Detroit, MI 48201
United States of America

From: Stoken, Laura (GOV)
Sent: Monday, November 16, 2015 9:03 AM
To: Redford, James (GOV)
Cc: Thomet, Ruth (GOV)
Subject: FW: Safe Drinking Water Act Notice of Intent to Sue
Attachments: 2015-11-16-SDWA-Notice of Intent to Sue-Flint-FINAL.PDF

Importance: High

Good morning sir,

Please see below (attached) correspondence that came into the Governor's public facing e-mail box. I am forwarding onto you for action determination.

Please let me know if I am sending it you by mistake.

Thanks,

Laura

From: Chaudhary, Dimple[redacted]
Sent: Monday, November 16, 2015 9:00 AM
To: Snyder, Rick (GOV) <[redacted]
Subject: Safe Drinking Water Act Notice of Intent to Sue

Dear Governor Snyder,

Attached please find a Notice of Intent to sue under the federal Safe Drinking Water Act for failure to control lead in drinking water in Flint, Michigan, and failure to assist Michigan schools with lead testing and remediation. We have also sent you the Notice and a CD of exhibits today by certified mail, return receipt requested.

Best regards,

Dimple Chaudhary

Dimple Chaudhary, Senior Attorney*
Natural Resources Defense Council
1152 15th Street NW, Suite 300, Washington, DC 20005
Tel. 202.289.2385 | email [redacted]

*admitted in the District of Columbia and New York

PRIVILEGE AND CONFIDENTIALITY NOTICE
This message is intended only for the addressee and may contain information that is privileged, confidential, and exempt from disclosure under law. If you are not the intended recipient, please notify me immediately by email and delete the original message.

November 16, 2015

By Certified Mail, Return Receipt Requested

City of Flint
Attn: Mayor Karen Williams Weaver
1101 South Saginaw Street
Flint, MI 48502
mayor@cityofflint.com

Governor Rick Snyder
P.O. Box 30013
Lansing, MI 48909
contactmichigan@state.mi.us

Director Dan Wyant
Michigan Department of Environmental Quality
Constitution Hall
525 West Allegan Street
P.O. Box 30473
Lansing, MI 48909-7973
WyantD@michigan.gov

Treasurer Nick A. Khouri
Michigan Department of Treasury
Richard H. Austin Building
430 West Allegan Street
Lansing, MI 48922
KhouriN@michigan.gov

RTAB Chairperson Frederick Headen
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
HeadenF@michigan.gov

RTAB Member Brian Larkin
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
blarkin@flintandgenessee.org

RTAB Member David McGhee
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
drmcghee@skillman.org

RTAB Member Robert McMahan
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
president@kettering.edu

RTAB Member Beverly Walker-Griffea
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
b.walkergriffea@mcc.edu

City Administrator Natasha Henderson
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
nhenderson@cityofflint.com

Re: Notice of Intent to Sue Under the Safe Drinking Water Act, 42 U.S.C. § 300j-8(b)(1)(a), for Failure to Control Lead in Drinking Water in Flint, Michigan, and Failure to Assist Michigan Schools with Lead Testing and Remediation

We write on behalf of Concerned Pastors for Social Action, Melissa Mays, the American Civil Liberties Union of Michigan (ACLU of Michigan), and the Natural

Resources Defense Council (NRDC), nonprofit citizens' organizations and individuals working to secure safe drinking water for the residents of Flint, Michigan. Since April 2014, the City of Flint and Michigan state officials have failed to monitor and control for lead in Flint's drinking water, and to maintain a program to assist Michigan schools with lead testing and remediation, in violation of the Safe Drinking Water Act, 42 U.S.C. § 300f et seq. This letter provides notice pursuant to 42 U.S.C. § 300j-8(b)(1)(a) that we intend to sue the City of Flint; Rick Snyder, Governor of Michigan; Dan Wyant, Director of Michigan Department of Environmental Quality; Nick A. Khouri, Treasurer of Michigan; Frederick Headen, Chairperson of the Flint Receivership Transition Advisory Board (Board); Brian Larkin, David McGhee, Robert McMahan, and Beverly Walker-Griffea, Members, RTAB; and Natasha Henderson, Flint City Administrator, if these violations are not remedied within sixty days.[1]

Concerned Pastors for Social Action is an association of religious leaders from more than thirty churches and ministries in the Flint area that has advocated for the rights of the underserved for nearly fifty years. Melissa Mays is a Flint resident whose family has suffered from serious health problems as a result of the City's failure to provide safe drinking water. The ACLU of Michigan works in courts, legislatures, and communities to preserve the protections that our laws guarantee to all citizens. NRDC is a national membership organization committed to protecting public health and the environment and to reducing the exposure of all communities to toxic chemicals. These groups and individuals continue to be harmed by the violations of the Safe Drinking Water Act by the City and Michigan state officials, detailed below.

I. City and State officials have exposed and continue to expose Flint residents to dangerous amounts of lead in drinking water

A. The City, Emergency Manager, and State Treasurer chose the Flint River as a primary drinking-water source

In the fall of 2011, Michigan Governor Rick Snyder declared a financial emergency in the City of Flint and appointed an emergency manager to take control of the City's operations and finances.[2] Flint Mayor Dayne Walling and the City Council were stripped of all authority except as specifically allowed by the Emergency Manager, and the City was placed in state receivership.[3] Under Michigan's Local Financial Stability and Choice Act, an

---

[1] These individuals are noticed in their official capacities.

[2] *See* Mich. Comp. Laws § 141.1549; Letter from Gov. Rick Snyder to Mayor Dayne Walling and Flint City Council (Nov. 8, 2011), http://www.michigan.gov/documents/treasury/Flint-GovernorsDetermination-11-8-11_417435_7.pdf (attached as Ex. 1); Dawson Bell, *Governor names Flint native as city's emergency financial manager*, Detroit Free Press, Nov. 30, 2011, http://www.freep.com/article/20111130/NEWS06/111300370/Governor-names-Flint-native-city-s-emergency-financial-manager (attached as Ex. 2).

[3] Mich. Comp. Laws § 141.1549(2).

Emergency Manager has "broad powers" to "rectify the financial emergency and to assure fiscal accountability of the local government."[4]

While under control of the Emergency Manager, the City faced decisions about the future of its drinking-water supply. For fifty years, the City had purchased drinking water from the Detroit Water and Sewerage Department (Detroit), which sources water from Lake Huron.[5] In response to rising water rates charged by Detroit, in March 2013, the City Council voted to join the Karegnondi Water Authority (KWA), a newly formed municipal water supply system. The KWA was planning to build a pipeline to distribute water directly from Lake Huron to mid-Michigan communities, including Genesee County, where Flint is located.[6] The City Council's vote did not become effective until several weeks later, after both the Emergency Manager and State Treasurer approved the decision.[7]

The City's contract with Detroit was set to expire in April 2014, at least eighteen months before the KWA pipeline was scheduled to be completed.[8] Faced with a year-and-a-half gap in the City's water supply, the Emergency Manager declined to negotiate a short-term contract with Detroit and decided instead to use the Flint River as a primary drinking-water source.[9] The City had previously explored—and rejected—the Flint River as a primary drinking-water source. This is because the Flint Water Treatment Plant would have required fifty million dollars in upgrades to treat the river water and "produce finished water in conformance with the current federal and state drinking water regulations."[10]

---

[4] *Id.*

[5] *See* Dominic Adams, *Closing the valve on history: Flint cuts water flow from Detroit after nearly 50 years*, Michigan Live, Apr. 25, 2014, http://www.mlive.com/news/flint/index.ssf/2014/04/closing_the_valve_on_history_f.html (attached as Ex. 3).

[6] Steve Carmody, *Flint opting to get its future tap water from Lake Huron*, Michigan Radio, Mar. 25, 2013, http://michiganradio.org/post/flint-opting-get-its-future-tap-water-lake-huron#stream/ (attached as Ex. 4); Karegnondi Water Authority, About, http://www.karegnondi.com/#!about/c20r9 (last visited Nov. 13, 2015) (attached as Ex. 5).

[7] *See* Mich. Comp. Laws § 141.1552(1)(g), (3); Emergency Manager, Resolution to Purchase Capacity from Karegnondi Water Authority (adopted Mar. 29, 2013) (attached as Ex. 6); Letter from Andy Dillon, State Treasurer, to Edward Kurtz, Emergency Manager (Apr. 11, 2013) (authorizing Emergency Manager to enter into contract with KWA) (attached as Ex. 7).

[8] Sarah Schuch, *KWA pipeline work continues as Flint water lead concerns rise*, Michigan Live, Sept. 25, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/kwa_pipeline_projected_to_be_c.html (attached as Ex. 8); *see* Ron Fonger, *Detroit gives notice: It's terminating water contract covering Flint, Genesee County in one year*, Michigan Live, Apr. 19, 2013, http://www.mlive.com/news/flint/index.ssf/2013/04/detroit_gives_notice_its_termi.html (attached as Ex. 9).

[9] Letter from Darnell Earley, Emergency Manager, to Sue McCormick, Detroit Water & Sewer Dep't (Mar. 7, 2014) (explaining that the City "has actively pursued using the Flint River as a temporary water source" instead of accepting Detroit's offer to provide water to the City) (attached as Ex. 10).

[10] Cost of Service Study (2011), Appendix 8 to Analysis of the Flint River as a Permanent Water Supply for the City of Flint, http://www.scribd.com/doc/64382181/Analysis-of-the-Flint-River-as-a-Permanent-Water-Supply-for-the-City-of-Flint-July-2011-Appendices-1-to-8 (attached as Ex. 11);

Under the Safe Drinking Water Act's Lead and Copper Rule, Flint's water system could not use the Flint River as a water source without first obtaining approval from the Michigan Department of Environmental Quality (MDEQ). The Lead and Copper Rule required MDEQ to approve both the City's proposed addition of a new water source (the Flint River) and the long-term change in water treatment (from treatment through Detroit's water plant to treatment at the Flint Water Treatment Plant).[11] In April 2014, MDEQ approved the switch to river water.[12] The City immediately began pumping Flint River water through the City's distribution pipes and into residents' taps.

B. Dangerous lead contamination results from the City's switch to river water

In the twenty months following the switch in water sources, residents' drinking water has been at times cloudy, discolored, and foul-smelling.[13] Residents reported that they have experienced hair loss, skin rashes, and vomiting after drinking the water.[14] In the summer of 2014, the City was forced to issue several boil-water notices after tap water tested positive for total coliform bacteria.[15] The City's subsequent treatment of the water to kill disease-carrying pathogens resulted in elevated levels of total trihalomethanes, a disinfection byproduct that can cause serious health problems, including an increased risk of cancer.[16]

---

see also Kristin Longley, *Water pipeline v. Flint River: City of Flint studying its drinking water options*, Michigan Live, Jan. 22, 2011, http://www.mlive.com/news/flint/index.ssf/2011/01/water_pipeline_vs_flint_river.html (attached as Ex. 12); Dominic Adams, *Flint River now an option for drinking water following Detroit's termination of contract*, Michigan Live, July 23, 2013, http://www.mlive.com/news/flint/index.ssf/2013/07/city_readying_water_plant_to_t.html (quoting city officials' explanation for rejecting use of Flint River: "upgrades to Flint's water plant would be too expensive, the river didn't provide enough capacity to serve Flint residents' water needs and the Michigan Department of Environmental Quality would not allow it") (attached as Ex. 13).

[11] 40 C.F.R. § 141.90(a)(3); *see also id.* § 141.81(a)-(b).

[12] *See* Adams, *Closing the valve on history*, *supra* note 5 (Ex. 3).

[13] *See* Curt Guyette, *In Flint, Michigan, Overpriced Water is Causing People's Skin to Erupt in Rashes and Hair to Fall Out*, The Nation, July 16, 2015, http://www.thenation.com/article/in-flint-michigan-overpriced-water-is-causing-peoples-skin-to-erupt-and-hair-to-fall-out/ (attached as Ex. 14); Wenonah Hauter, *Flint's Brown Water Blues*, Huffington Post, July 10, 2015, http://www.huffingtonpost.com/wenonah-hauter/flints-brown-water-blues_b_7765132.html (attached as Ex. 15).

[14] Laura Gottesdiener, *Flint, Mich., residents find state water control hard to swallow*, Al Jazeera America, Apr. 3, 2015, http://america.aljazeera.com/articles/2015/4/3/flint-residents-find-state-water-control-hard-to-swallow.html (attached as Ex. 16).

[15] Ron Fonger, *Flint issues boil water advisory for section of the city after positive test result for total coliform bacteria*, Michigan Live, Sept. 5, 2014, http://www.mlive.com/news/flint/index.ssf/2014/09/flint_issues_boil_water_adviso.html (attached as Ex. 17).

[16] Robin Erb, *Who wants to drink Flint's water?*, Detroit Free Press, Jan. 23, 2015, http://www.freep.com/story/news/local/michigan/2015/01/22/water-woes-latest-hit-flint/22193291/ (attached as Ex. 18); Mich. Dep't of Envtl. Quality, Violation Notice—Maximum Contaminant Level for Total Trihalomethanes (Dec. 16, 2014) (attached as Ex. 19); U.S. EPA, Basic Information about Disinfection Byproducts in Drinking Water, http://water.epa.gov/drink/contaminants/basicinform

Because Flint River water is also highly corrosive, dangerous amounts of lead began to leach out of pipes and into the City's drinking water.[17] Lead in drinking water occurs primarily from corrosion of pipes and other plumbing materials that contain lead or lead solder.[18] The Lead and Copper Rule requires water systems to manage lead levels by controlling corrosion, which is often accomplished by adding corrosion-inhibiting chemicals.[19] Water systems must implement and maintain an "optimal" corrosion-control treatment program that "minimizes the lead . . . concentrations at users' taps."[20]

Flint did not consider how to control the corrosivity of the river water before switching water sources, nor did MDEQ require the City to implement any corrosion-control measures. Rather, beginning in April 2014, the City did not use any form of treatment to control corrosion.[21] The City waited until after its residents were drinking the river water to assess whether it posed a risk of increased lead exposure. MDEQ endorsed this approach. In June 2014, Flint's water system initiated the first of two six-month monitoring periods to test tap water for lead under the Lead and Copper Rule; the second six-month period ran from January to June 2015.[22] During these monitoring periods, the water system used flawed testing methods that appear to have been designed to underreport the lead content of residents' drinking water.[23]

---

ation/disinfectionbyproducts.cfm (last updated Dec. 13, 2013) (attached as Ex. 20); *see also* 40 C.F.R. § 141.64(b).

[17] Marc Edwards, *Test Update: Flint River water 19X more corrosive than Detroit water for Lead Solder; Now What?*, Flint Water Study (Sept. 11, 2015), http://flintwaterstudy.org/2015/09/test-update-flint-river-water-19x-more-corrosive-than-detroit-water-for-lead-solder-now-what/ (attached as Ex. 21); Marc Edwards, *Flint River water is very corrosive to lead, and causing lead contamination in homes*, Flint Water Study (Sept. 2, 2015), http://flintwaterstudy.org/2015/09/flint-rivers-water-is-very-corrosive-to-lead-and-causing-lead-contamination-in-homes/ (attached as Ex. 22). The river water is so corrosive that in October 2014, a local GM engine plant decided to switch back to Lake Huron water to avoid damage to equipment at the plant from corrosion. Brianna Owczarzak, *GM says no to Flint water*, WNEM, Oct. 14, 2014, http://www.wnem.com/story/26785625/gm-says-no-to-flint-water (attached as Ex. 23).

[18] *See* Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper, 56 Fed. Reg. 26,460, 26,464 (June 7, 1991).

[19] *See* 40 C.F.R. § 141.82.

[20] *Id.* §§ 141.2; 141.80(d).

[21] *See* Email from Pat Cook, MDEQ, to Miguel Del Toral, U.S. EPA (Apr. 24, 2015) (attached as Ex. 24).

[22] *See* 40 C.F.R. § 141.86; Email from Pat Cook, *supra* note 21 (Ex. 24).

[23] *See infra* pp. 11-13.

Flint's monitoring data showed that some residents' water contained lead at concentrations above the federal "action level" of 15 parts per billion (ppb).[24] These high lead levels put residents at risk of a broad array of serious, irreversible health effects, including cognitive impairment, kidney damage, and increased blood pressure.[25] When the Environmental Protection Agency (EPA) learned of these high lead sampling results in February 2015, it notified MDEQ officials that the sampling results raised significant concerns about corrosion from lead pipes in Flint's distribution system.[26] Nonetheless, throughout the monitoring periods, the City and MDEQ maintained that these high lead levels were isolated and that the data, taken together, demonstrated Flint's compliance with the Lead and Copper Rule.[27]

C. Community advocacy and independent testing prompt long past due response from City and State officials

As the City concluded its second six-month round of sampling in July 2015, and notified some Flint residents of elevated lead levels in their tap water, the community became increasingly concerned. A small coalition of local groups, including Water You Fighting For and Concerned Pastors for Social Action, began working with researchers at Virginia Tech to conduct their own lead sampling of Flint's water. The Virginia Tech scientists found that ten percent of the more than 250 samples collected from Flint residences had lead levels of 25 ppb or more, well above the federal action level for lead.[28] Several samples exceeded 100 ppb, and one sample exceeded 1000 ppb.[29] Though aware of

---

[24] *See* Mich. Dep't of Envtl. Quality, Lead and Copper Report and Consumer Notice of Lead Result Certificate for Community Water Supply (Aug. 20, 2015) (showing six samples with lead levels over the action level) (attached as Ex. 25); 40 C.F.R. § 141.80(c)(1).

[25] *See, e.g.*, U.S. EPA, Integrated Science Assessment for Lead tbl.ES-1 (June 2013) (attached as Ex. 26); U.S. EPA, Basic Information About Lead in Drinking Water, http://water.epa.gov/drink/contaminants/basicinformation/lead.cfm (last updated June 26, 2015) (explaining that "[i]nfants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development," and that "[a]dults who drink this water over many years could develop kidney problems or high blood pressure") (attached as Ex. 27); *see also* National Ambient Air Quality Standards for Lead, 80 Fed. Reg. 278, 290 (Jan. 5, 2015).

[26] *See, e.g.*, Email from Jennifer Crooks, U.S. EPA, to Stephen Busch, MDEQ, and Mike Prysby, MDEQ (Feb. 26, 2015) (attached as Ex. 28).

[27] *See* Nancy Kaffer, *MDEQ e-mails show stunning indifference to Flint peril*, Detroit Free Press, Oct. 22, 2015, http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/10/21/indifference-characterized-state-approach-flint-water/74289430/ (attached as Ex. 29).

[28] *Flint Town Hall Meeting Presentation and Distribution of lead results across Flint by ward and zip codes*, Flint Water Study, Sept. 16, 2015, http://flintwaterstudy.org/2015/09/distribution-of-lead-results-across-flint-by-ward-and-zip-codes/ (attached as Ex. 30); Ron Fonger, *Virginia Tech professor says Flint's tests for lead in water can't be trusted*, Michigan Live, Sept. 15, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/virginia_tech_researcher_says.html (attached as Ex. 31).

[29] Marc Edwards et al., *Lead testing results for water sampled by residents,* Flint Water Study, Sept. 28, 2015, http://flintwaterstudy.org/information-for-flint-residents/results-for-citizen-testing-for-lead-300-kits/ (attached as Ex. 32).

the Virginia Tech sampling results, MDEQ officials continued to insist that Flint's water was safe to drink.[30]

In September 2015, a medical study conducted by a local pediatrician confirmed the kinds of adverse health impacts that residents had voiced concern about for months: the rate of Flint children with elevated blood lead levels had nearly doubled since the City changed its drinking-water source.[31] State officials and the Governor reacted by "downplay[ing] and in some cases attempt[ing] to discredit" the pediatrician's findings, and dismissing citizen concerns as "near-hysteri[cal]."[32]

Subsequent testing by MDEQ revealed that at least four schools in Flint had lead levels in their drinking water above the federal action level.[33] At Freeman Elementary School, water tested had lead levels over 100 ppb, more than six times the federal action level.[34] This increase in lead exposure is particularly dangerous in Flint, a community where residents are already at higher risk of elevated blood lead levels and lead poisoning. Michigan ranks fifth worst in the country for harmful exposures to lead.[35] Low income is a risk factor for lead poisoning, and more than a third of families in Flint live below the poverty level, three times the national average.[36] Children in Flint also face high risk of lead

---

[30] Ron Fonger, *Feds sending in experts to help Flint keep lead out of water*, Michigan Live, Sept. 10, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/university_researchers_dont_dr.html (attached as Ex. 33).

[31] *Pediatric Lead Exposure in Flint, MI: Concerns from the Medical Community* (PowerPoint Presentation) (presented on Sept. 24, 2015), *available at* http://flintwaterstudy.org/2015/09/pediatric-lead-exposure-presentation-from-hurley-medical-center-doctors-concerning-flint-mi/ (attached as Ex. 34).

[32] *Study suggests Flint's water causing increased lead poisoning*, Michigan Radio, Sept. 28, 2015, http://michiganradio.org/post/study-suggests-flints-water-causing-increased-lead-poisoning#stream/0 (attached as Ex. 35); Ron Fonger, *State says data shows no link to Flint River, elevated lead in blood,* Michigan Live, Sept. 24, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/state_says_its_data_shows_no_c.html (attached as Ex. 36); *Did this Michigan Town Poison its Children?*, U.S. News & World Report, Sept. 24, 2015, http://www.usnews.com/news/articles/2015/09/25/flint-michigan-children-show-high-levels-of-lead-in-blood (attached as Ex. 37).

[33] Steve Carmody, *Four Flint schools have high lead levels in their water*, Michigan Radio, Oct. 8, 2015, http://michiganradio.org/post/four-flint-schools-have-high-lead-levels-their-water (attached as Ex. 38).

[34] *Id.*

[35] Ctrs. for Disease Control & Prevention, *Public Health in Action: Lead Poisoning Prevention in Michigan* (last updated Feb. 4, 2013), http://www.cdc.gov/nceh/information/healthy_homes_lead.htm (attached as Ex. 39).

[36] 2009-2013 American Community Survey 5-Year Estimates, 2013, *available at* http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml (enter "Flint, MI" in the box under "Community Facts," click on "Income" on left-side bar, then click "Selected Economic Characteristics" under "2013 American Community Survey") (table attached as Ex. 40 compares data from Flint, Michigan, to Michigan and the United States).

exposure from lead-paint dust, as nearly ninety percent of Flint's housing stock was built before 1978 (when the federal ban on high-lead paint went into effect).[37]

Finally, in late September 2015, the City abandoned its assertions that Flint's drinking water was safe. Nearly seven months after the City first saw dangerously high levels of lead in some residents' water, Flint issued a drinking-water advisory and called for state financial assistance to switch the water system back to Detroit's supply.[38] Two weeks later, Governor Snyder requested six million dollars from the state legislature to reconnect the Flint water system to Detroit.[39] With additional funding from the City and a private foundation, the switch was completed in mid-October.[40]

Following the switch back to Detroit water, some government officials began to ask questions about what went wrong in the course of Flint's change in water sources.[41] Governor Snyder created a task force to review water management and testing in Flint,[42] and EPA established its own task force "to provide the Agency's technical expertise through regular conversations" with the City and MDEQ.[43] Governor Snyder has also announced

---

[37] *2012 Annual Data Report on Blood Lead Levels of Children in Michigan* 26 (Apr. 30, 2013), https://www.michigan.gov/documents/mdch/2012AnnualDataReportOnBloodLeadLevels_419508_7.pdf (attached as Ex. 41); Am. Cancer Soc'y, *Lead, Lead in the Environment,* http://www.cancer.org/cancer/cancercauses/othercarcinogens/athome/lead (last updated May 27, 2014) (explaining that lead paint is a "major" source of exposure) (attached as Ex. 42); Maj. Thomas F. Zimmerman, *The Regulation of Lead-Based Paint in Air Force Housing,* 44 A.F. L. Rev. 169, 174-75 (1998).

[38] *City of Flint Issues Lead Advisory*, City of Flint, Sept. 25, 2015, https://www.cityofflint.com/2015/09/25/city-of-flint-issues-lead-advisory/ (attached as Ex. 43); Steve Carmody, *Flint officials exploring return to Detroit water*, Michigan Radio, Sept. 28, 2015, http://michiganradio.org/post/flint-officials-exploring-return-detroit-water#stream/0 (attached as Ex. 44).

[39] John Wisely, *Snyder announces $12 million plan to fix Flint water*, Detroit Free Press, Oct. 8, 2015, http://www.freep.com/story/news/local/michigan/2015/10/08/snyder-flint-water-reconnect/73567778/ (attached as Ex. 45).

[40] Amanda Emery, *Flint reconnects to Detroit water, may take 3 weeks to clear all pipes*, Michigan Live, Oct. 16, 2015, http://www.mlive.com/news/flint/index.ssf/2015/10/flint_reconnecting_to_detroit.html (attached as Ex. 46).

[41] *E.g.*, Letter from Sen. Jim Ananich, Mich. Senate Minority Leader, to Susan Hedman, U.S. EPA, and Gina McCarthy, U.S. EPA (Oct. 21, 2015) (attached as Ex. 47); Letter from Rep. Daniel Kildee, U.S. Congressman, to Gina McCarthy, U.S. EPA (Oct. 21, 2015) (attached as Ex. 48).

[42] Press Release, Gov. Rick Snyder, *Gov. Rick Snyder announces Flint Water Task Force to review state, federal and municipal actions, offer recommendations* (Oct. 21, 2015), http://www.michigan.gov/snyder/0,4668,7-277-57577_57657-367761--,00.html (attached as Ex. 49).

[43] Press Release, U.S. EPA, *EPA Establishes Safe Drinking Water Task Force to Provide Technical Expertise to MDEQ and City of Flint* (Oct. 16, 2015), http://yosemite.epa.gov/opa/admpress.nsf/0/A92DE629DB86E66685257EE000579593 (attached as Ex. 50).

plans to launch an "education campaign soon to help schools statewide learn how to get their water tested" for lead.[44]

Despite this proliferation of task forces and campaigns, neither the City nor MDEQ has announced changes in the City's lead monitoring practices in the wake of Flint's public-health crisis. Rather, Flint and MDEQ have maintained that these practices are accurate and adequate, despite the near certainty that they are underrepresenting lead contamination in many of Flint's high-risk homes.

II. City and State officials are in violation of the Safe Drinking Water Act's Lead and Copper Rule

The Safe Drinking Water Act (the Act) authorizes citizens to sue any governmental entity "who is alleged to be in violation of any requirement" under the statute.[45] These requirements include the national primary drinking-water regulations for lead and copper set forth in the Lead and Copper Rule.[46] The Lead and Copper Rule obligates water systems to monitor and control for lead in drinking water.[47]

Since April 2014, Flint's water system has failed to comply with the Lead and Copper Rule's requirements for monitoring water for lead, notifying the public of tap-water monitoring results, reporting monitoring results to MDEQ, and controlling corrosion from lead pipes.[48] These violations systematically result in the City's underestimating lead levels in its drinking water, masking a public-health crisis. The violations are ongoing and likely to recur in the future: Flint's water system presently is obligated to monitor for lead every six months, and there is no indication that Flint has changed or disavowed its inadequate approach to monitoring.[49]

---

[44] *See* Lori Higgins, *Michigan to launch lead education effort statewide*, Detroit Free Press, Oct. 13, 2015, http://www.freep.com/story/news/local/michigan/2015/10/13/lead-water-flint-michigan-testing/73871480/ (attached as Ex. 51).

[45] 42 U.S.C. § 300j-8(a)(1).

[46] *See id.* § 300g-1(b)(1)(A); 40 C.F.R. § 141.80(a)(1).

[47] *See, e.g.*, 40 C.F.R. § 141.86.

[48] Flint's water system is subject to the requirements of the Lead and Copper Rule because it is a "community water system" not otherwise exempted from the regulations. 40 C.F.R. §§ 141.80(a)(1), 141.2.

[49] *See Tamaska v. City of Bluff City*, 26 F. App'x 482, 485 (6th Cir. 2002) (citing *Chesapeake Bay Found. v. Gwaltney of Smithfield*, 844 F.2d 170, 171–72 (4th Cir.1988)). A water system is required to monitor tap water for lead every six months if it (1) exceeds the action level for any monitoring period, or (2) "fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the State … for more than 9 days in any six-month period." 40 C.F.R. § 141.86(d)(4)(vi)(B). Flint's water system failed to maintain applicable values of orthophosphate and/or pH designated as the optimal water quality parameters by MDEQ. In addition, had the water system conducted monitoring in compliance with the Lead and Copper Rule during the January to June 2015 period, it likely would have exceeded the lead action level.

Under the Act, a "supplier of water" is "any person who owns or operates a public water system."[50] The City of Flint owns Flint's water system.[51] Upon information and belief, the State officials administering Flint's receivership and the City presently operate Flint's water system. As discussed above, Flint's Emergency Manager exercised the authority of the local government in the place of Flint's mayor and city council. The Emergency Manager managed the water system and conducted its affairs, including making the decision to use the Flint River as a primary drinking-water source.[52] In April 2015, Governor Snyder removed the Emergency Manager and appointed a Receivership Transition Advisory Board to oversee the City's affairs until the receivership is terminated.[53] The Board has control over the City's budget, and must approve all decisions adopted by the City Council.[54] The Michigan Local Financial Stability and Choice Act requires the State Treasurer to sit on a receivership transition advisory board for any municipality for which the governor appoints such a board, and Governor Snyder has appointed the State Treasurer (or his designee) to chair Flint's Board.[55] The City Administrator reports to the Board, manages the City's daily administrative operations, and directs City department heads in carrying out the daily activities of the City.[56] To date, the City remains in receivership, and its actions remain subject to approval of the Board.[57]

Accordingly, the City of Flint; Governor Snyder; Dan Wyant, Director of MDEQ; Nick A. Khouri, Treasurer of Michigan; Frederick Headen, Chairperson of the Flint Receivership Transition Advisory Board; Brian Larkin, David McGhee, Robert McMahan,

---

[50] 42 U.S.C. § 300f(5).

[51] *See* City of Flint, Water System Update, Sept. 2015, https://www.cityofflint.com/wp-content/uploads/City-Council-Water-Presentation-9-14-2015.pdf (attached as Ex. 52).

[52] *See United States v. Twp. of Brighton*, 153 F.3d 307, 314 (6th Cir. 1998) (defining "operator" for purposes of CERCLA as an entity that "performed some affirmative acts," such as "directing the workings, managing, or conducting the affairs" of a facility) (internal quotation marks and alterations omitted); *cf. United States v. Alisal Water Corp.*, 114 F. Supp. 2d 927, 938 (N.D. Cal. 2000) (applying case law discussing CERCLA "operator" liability to the Safe Drinking Water Act context).

[53] Mich. Comp. Laws § 141.1563(1); Press Release, Gov. Rick Snyder, *Gov. Rick Snyder: City of Flint ready to move forward as financial emergency resolved*, Apr. 29, 2015, http://www.michigan.gov/snyder/0,4668,7-277-57577_57657-353433--,00.html (attached as Ex. 53); Emergency Manager Order 20 ¶¶ 4.a.6, 4.a.7 (adopted Apr. 25, 2015), https://www.cityofflint.com/wp-content/uploads/Order-No.-20.pdf (attached as Ex. 54).

[54] Emergency Manager Order 20 ¶¶ 4.a.6, 4.a.7, *supra* note 53 (Ex. 54).

[55] *See* Mich. Comp. Laws § 141.1563(2); Letter from Gov. Rick Snyder to Hon. Ruth Johnson, Mich. Sec'y of State (Apr. 29, 2015), http://michigan.gov/documents/treasury/Flint_RTAB_Appointments_488251_7.pdf (attached as Ex. 55).

[56] Emergency Manager Order 3 ¶¶ 4-6, 25 (adopted Apr. 10, 2015), https://www.cityofflint.com/wp-content/uploads/Order-No.-3.pdf (attached as Ex. 56). The City Administrator was appointed by the Emergency Manager and can be removed only with the Board's consent.

[57] *Id.*

and Beverly Walker-Griffea, Members of the Board; and Natasha Henderson, Flint City Administrator, are responsible for the violations of the Act by Flint's water system which have endangered and will continue to endanger the health of Flint's residents.

A. Flint's water system is in violation of the Lead and Copper Rule's tap-water monitoring, reporting, and notification requirements

The Lead and Copper Rule requires water systems to identify a pool of sampling sites prior to the commencement of a monitoring period.[58] This requirement is designed to target residences at high risk of lead contamination in drinking water, such as homes served by lead service lines.[59] In violation of the Rule, Flint's water system does not select sampling sites for lead monitoring based on a pre-established sampling pool. For Flint's most recent completed monitoring period, January–June 2015, the Director of the City's Department of Public Works admitted that Flint "thr[ew] bottles out everywhere just to collect as many [samples] as we can, to try and hit our number."[60] Similarly, email correspondence shows that the City has, during several monitoring periods, asked its own employees to submit tap-water samples, without regard to whether the employees were part of a pre-selected sampling pool.[61]

Under the Lead and Copper Rule, water systems that contain lead service lines also must draw fifty percent of their tap-water samples from sites served by a lead service line.[62] Flint's water system does not comply with this requirement. The water system reported to MDEQ that all the sample sites it used during the January–June 2015 monitoring period were residences served by lead service lines.[63] Flint's Utilities Administrator, however, admitted that he was not able to verify that all homes sampled were served by lead service lines.[64] This is because City records concerning the locations of lead service lines in the distribution system are stored on 45,000 paper notecards. Flint began converting these notecards into an electronic spreadsheet this fall, well after the January–June 2015 monitoring period.[65]

---

[58] *See* 40 C.F.R. § 141.86(a).

[59] *Id.*

[60] *See* ACLU of Michigan, *Thirst for Truth: Who's to Blame for Flint Water Crisis?*, https://www.youtube.com/watch?t=9&v=LTO9irD2f0Y (posted Sept. 23, 2015).

[61] Email from Michael Glasgow, Flint Utilities Adm'r, to Flint municipal staff (June 1, 2015) (attached as Ex. 57).

[62] 40 C.F.R. § 141.86(a)(8).

[63] *See, e.g.*, City of Flint, Lead and Copper Report and Consumer Notice of Lead Result Certificate for Community Water Supply (July 28, 2015) [hereinafter July 28 Report] (attached as Ex. 58).

[64] *See* ACLU of Michigan, *Thirst for Truth: Who's to Blame for Flint Water Crisis?*, *supra* note 60.

[65] *See* Ron Fonger, *Flint data on lead water lines stored on 45,000 index cards*, Michigan Live, Oct. 1, 2015, http://www.mlive.com/news/flint/index.ssf/2015/10/flint_official_says_data_on_lo.html (attached as Ex. 59).

Flint's water system has also failed to sample the same sites across monitoring periods or document the reasons for declining to sample the same sites, as the Lead and Copper Rule requires.[66] Sampling new sites from one monitoring period to the next is permitted only if a site "is no longer accessible" to the water system or "no longer fits the requirements of a priority site."[67] Records show that in the January–June 2015 monitoring period, Flint's water system retested only thirteen of the one hundred sites it sampled in the previous monitoring period.[68] It did not provide the required explanation for these departures from the previous monitoring period's sampling sites.[69] Upon information and belief, Flint's water system concentrated its monitoring in areas where it anticipated low lead levels, due to recent infrastructure improvements, and selectively retested sites that had previously yielded low lead levels. Such selective sampling violates the Lead and Copper Rule's intention that water systems "do not use only those sampling locations with the lowest lead or copper levels."[70]

Flint's instructions to residents for the collection of tap-water samples also violate the Lead and Copper Rule. The Rule allows residents to collect the tap-water samples used to monitor lead in drinking water, so long as the water system instructs residents of the sampling procedures required by the regulations.[71] Tap-water samples must be "first-draw samples," meaning that the sample must be collected after water in the tap has stood motionless in the plumbing system for at least six hours.[72] Flint's instructions direct residents to flush their taps for five minutes prior to letting the water sit for the six required hours. This "pre-flushing" has been shown to "result in the minimization of lead capture and significant underestimation of lead levels in drinking water."[73] The water system's pre-flush instruction "negates the intent of the [Lead and Copper Rule] to collect compliance

---

[66] 40 C.F.R. § 141.86(b)(4).

[67] U.S. EPA, *Lead and Copper Rule Monitoring and Reporting Guidance for Public Water Systems* 25 (Mar. 2010), http://water.epa.gov/lawsregs/rulesregs/sdwa/lcr/upload/Revised-Lead-and-Copper-Rule-Monitoring-and-Reporting-Guidance-for-Public-Water-Systems.pdf (attached as Ex. 60).

[68] *See* July 28 Report, *supra* note 63 (reporting that the same sample sites were not used) (Ex. 58); *see also* Curt Guyette, *Lead Astray: An ACLU of Michigan investigation has found a stream of irregularities in Flint's water tests*, Michigan Democracy Watch Blog, Sept. 14, 2015, http://aclumich.org/democracywatch/index.php/entry/lead-astray-an-aclu-of-michigan-investigation-has-found-a-stream-of-irregularities-in-flint-s-water-tests (attached as Ex. 61).

[69] 40 C.F.R. § 141.90(a)(1)(v).

[70] U.S. EPA, *Lead and Copper Rule Monitoring and Reporting Guidance for Public Water Systems*, *supra* note 67, at 25 (Ex. 60).

[71] 40 C.F.R. § 141.86(b)(2).

[72] *Id.* §§ 141.2, 141.86(b)(2).

[73] Mem. from Miguel Del Toral, U.S. EPA, to Thomas Poy, U.S. EPA, at 2 (June 24, 2015) (attached as Ex. 62).

samples under 'worst-case' conditions,"[74] and goes "against the intent of the monitoring protocol, since it changes the normal water use of the homeowners in the sample."[75]

Flint's water system is violating the Lead and Copper Rule's reporting requirements by representing to MDEQ that Flint's monitoring practices are in compliance with the Rule. The City's water system did not provide documentation to MDEQ justifying its selection of new sample sites in the January–June 2015 monitoring period, and, upon information and belief, is not accurately reporting information concerning whether sampled sites meet required regulatory criteria.[76]

The Lead and Copper Rule also requires Flint's water system to notify each resident whose tap water was sampled of the lead results.[77] Upon information and belief, Flint has failed and continues to fail to properly notify all residents whose tap water was tested for lead of the individual monitoring results.

B. Flint's water system has failed to maintain optimal corrosion-control treatment

The Lead and Copper Rule required all large public water systems, including Flint's water system, to install an "optimal corrosion control treatment" program by January 1, 1997.[78] After a system has optimized its corrosion-control treatment, the regulations require the system to "continue to operate and maintain optimal corrosion control treatment."[79] Since April 2014, Flint's water system has not maintained an optimal corrosion-control treatment program. Historically, the water system complied with the corrosion-control requirements by purchasing treated water from Detroit. When Flint switched its water source to the Flint River in April 2014, it did nothing to treat the Flint River water to control corrosion. This failure to maintain optimized corrosion control violates the Lead and Copper Rule.

Although Flint's water system has resumed its purchase of treated water from Detroit, it has not disavowed its erroneous interpretation of the Lead and Copper Rule's corrosion-control requirements. Nor has it committed to maintaining optimized corrosion control when it switches water sources again this summer to the KWA pipeline. Flint's water system's failure to maintain an optimized corrosion-control treatment program is likely to recur in the future.

---

[74] *Id.*

[75] Letter from Cynthia Dougherty, U.S. EPA, to Ralph Scott, Alliance for Healthy Homes (Sept. 12, 2008) (attached as Ex. 63).

[76] *See* 40 C.F.R. § 191.90(a)(1)(i), (a)(1)(v); *supra* pp. 11-12.

[77] 40 C.F.R. § 141.85(d)(1).

[78] *Id.* § 141.81(d)(4).

[79] *Id.* § 141.82(g).

III. The State of Michigan's failure to maintain a schools testing and remediation program violates the Safe Drinking Water Act

The Act requires each state to establish a program "to assist" schools and day care centers in "testing for, and remedying, lead contamination in drinking water."[80] Test results must be made available at schools, with notification to parents and teachers.[81] Michigan, upon information and belief, does not maintain a program for school lead testing, remediation, and notification.[82] Accordingly, Governor Snyder and MDEQ Director Wyant are presently in violation of the Act's schools provision.[83]

IV. Intent to Sue

The City of Flint and Michigan state officials have been and continue to be in violation of the Lead and Copper Rule's requirements for monitoring and sampling tap water for lead, notifying the public of and reporting to the State tap-water monitoring results, and corrosion control. Governor Snyder and MDEQ Director Dan Wyant are in violation of the Act's requirement to maintain a program to assist Michigan schools with testing and remediating lead in school drinking water. These violations are likely to continue and to recur in the future absent a judicial decree ordering City and State officials to comply with the Act. If the City of Flint and the Michigan state officials identified above fail to cure their noncompliance with the Act within sixty days, Concerned Pastors for Social Action, Melissa Mays, ACLU of Michigan, and NRDC will file suit in federal district court seeking declaratory relief, injunctive relief, and litigation costs, as appropriate.

The name, address, and telephone number of each person giving notice pursuant to this letter are:

Concerned Pastors for Social Action
2200 Forrest Hill
Flint, MI 48504
(810) 394-6787
Attention: Pastor Allen Overton

---

[80] 42 U.S.C. § 300j-24(d)(1).

[81] *Id.* § 300j-24(d)(2).

[82] Although MDEQ recently announced "an education campaign" to help Michigan schools learn how to test their water for lead, MDEQ has yet to release the details of this effort, including whether it will offer the kind of assistance with testing, remediation, and notification contemplated by the Safe Drinking Water Act. *See* Higgins, *Michigan to launch lead education effort statewide*, *supra* note 44 (Ex. 51).

[83] MDEQ has primary enforcement authority in Michigan for the Safe Drinking Water Act. *See* MDEQ, Drinking Water, http://www.michigan.gov/deq/0,4561,7-135-3313_3675---,00.html (last visited Nov. 13, 2015) (attached as Ex. 64).

Melissa Mays
3714 Beecher Road
Flint, MI 48503

American Civil Liberties Union of Michigan
2966 Woodward Avenue
Detroit, MI 48103
(313) 578-6814
Attention: Michael Steinberg

Natural Resources Defense Council
1152 15th Street, NW, Suite 300
Washington, DC 20005
(202) 289-2385
Attention: Dimple Chaudhary

Do not hesitate to contact us if you would like to discuss this matter.

Respectfully,

Dimple Chaudhary
Natural Resources Defense Council
1152 15th Street, NW, Suite 300
Washington, DC 20005
(202) 289-2385

Sarah Tallman
Anjali Waikar
Evan Feinauer
Natural Resources Defense Council
20 North Wacker Drive, Suite 1600
Chicago, IL 60606
(312) 651-7918

Counsel for Concerned Pastors for Social Action, Melissa Mays, and Natural Resources Defense Council

Michael Steinberg
Brooke Tucker
American Civil Liberties Union of Michigan
2966 Woodward Avenue
Detroit, MI 48103
(313) 578-6814

Counsel for American Civil Liberties Union of Michigan

Enclosure

cc:

Administrator Gina McCarthy
U.S. EPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, NW
Mail Code: 1101A
Washington, DC 20460
McCarthy.gina@Epa.gov

Regional Administrator Susan Hedman
U.S. EPA Region 5
77 West Jackson Boulevard
Mail Code: R-19J
Chicago, IL 60604
Hedman.susan@Epa.gov

Attorney General Bill Schuette
State of Michigan
G. Mennen Williams Building, 7th Floor
525 W. Ottawa Street
P.O. Box 30212
Lansing, MI 48909
miag@michigan.gov

From: Brader, Valerie (LARA)
Sent: Monday, November 16, 2015 9:54 AM
To: Wyant, Dan (DEQ); Weber, Travis (GOV); Redford, James (GOV)
Subject: FW: NRDC and Flint
Attachments: 2015-11-16-SDWA-Notice of Intent to Sue-Flint-FINAL.PDF

From: Gonzalez, Ariana[redacted]
Sent: Monday, November 16, 2015 9:13 AM
To: Brader, Valerie (LARA)
Subject: NRDC and Flint

Hi Valerie,

I hoped to catch you on the phone, but didn't make it through. I wanted you to hear from me that NRDC's litigation team is at this moment filing a notice of intent to sue among others the City of Flint, Governor Snyder, and Dan Wyant under the Safe Drinking Water Act. NRDC along with the Concerned Pastors for Social Action, Melissa Mays, the American Civil Liberties Union of Michigan will working together in the state on this issue. I can put you in touch with those working in Flint if you'd like and will continue to be a resource and partner on all energy related matters. Please let me know if you have questions or would like more information.

Ariana

ARIANA GONZALEZ
Energy Policy Analyst
NATURAL RESOURCES
DEFENSE COUNCIL
20 N. WACKER DRIVE, SUITE 1600
CHICAGO, IL 60606
T 312.651.7924
[redacted]

November 16, 2015

By Certified Mail, Return Receipt Requested

City of Flint
Attn: Mayor Karen Williams Weaver
1101 South Saginaw Street
Flint, MI 48502
mayor@cityofflint.com

Governor Rick Snyder
P.O. Box 30013
Lansing, MI 48909
contactmichigan@state.mi.us

Director Dan Wyant
Michigan Department of Environmental Quality
Constitution Hall
525 West Allegan Street
P.O. Box 30473
Lansing, MI 48909-7973
WyantD@michigan.gov

Treasurer Nick A. Khouri
Michigan Department of Treasury
Richard H. Austin Building
430 West Allegan Street
Lansing, MI 48922
KhouriN@michigan.gov

RTAB Chairperson Frederick Headen
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
HeadenF@michigan.gov

RTAB Member Brian Larkin
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
blarkin@flintandgenessee.org

RTAB Member David McGhee
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
drmcghee@skillman.org

RTAB Member Robert McMahan
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
president@kettering.edu

RTAB Member Beverly Walker-Griffea
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
b.walkergriffea@mcc.edu

City Administrator Natasha Henderson
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
nhenderson@cityofflint.com

Re: Notice of Intent to Sue Under the Safe Drinking Water Act, 42 U.S.C. § 300j-8(b)(1)(a), for Failure to Control Lead in Drinking Water in Flint, Michigan, and Failure to Assist Michigan Schools with Lead Testing and Remediation

We write on behalf of Concerned Pastors for Social Action, Melissa Mays, the American Civil Liberties Union of Michigan (ACLU of Michigan), and the Natural

Resources Defense Council (NRDC), nonprofit citizens' organizations and individuals working to secure safe drinking water for the residents of Flint, Michigan. Since April 2014, the City of Flint and Michigan state officials have failed to monitor and control for lead in Flint's drinking water, and to maintain a program to assist Michigan schools with lead testing and remediation, in violation of the Safe Drinking Water Act, 42 U.S.C. § 300f et seq. This letter provides notice pursuant to 42 U.S.C. § 300j-8(b)(1)(a) that we intend to sue the City of Flint; Rick Snyder, Governor of Michigan; Dan Wyant, Director of Michigan Department of Environmental Quality; Nick A. Khouri, Treasurer of Michigan; Frederick Headen, Chairperson of the Flint Receivership Transition Advisory Board (Board); Brian Larkin, David McGhee, Robert McMahan, and Beverly Walker-Griffea, Members, RTAB; and Natasha Henderson, Flint City Administrator, if these violations are not remedied within sixty days.[1]

Concerned Pastors for Social Action is an association of religious leaders from more than thirty churches and ministries in the Flint area that has advocated for the rights of the underserved for nearly fifty years. Melissa Mays is a Flint resident whose family has suffered from serious health problems as a result of the City's failure to provide safe drinking water. The ACLU of Michigan works in courts, legislatures, and communities to preserve the protections that our laws guarantee to all citizens. NRDC is a national membership organization committed to protecting public health and the environment and to reducing the exposure of all communities to toxic chemicals. These groups and individuals continue to be harmed by the violations of the Safe Drinking Water Act by the City and Michigan state officials, detailed below.

I. City and State officials have exposed and continue to expose Flint residents to dangerous amounts of lead in drinking water

A. The City, Emergency Manager, and State Treasurer chose the Flint River as a primary drinking-water source

In the fall of 2011, Michigan Governor Rick Snyder declared a financial emergency in the City of Flint and appointed an emergency manager to take control of the City's operations and finances.[2] Flint Mayor Dayne Walling and the City Council were stripped of all authority except as specifically allowed by the Emergency Manager, and the City was placed in state receivership.[3] Under Michigan's Local Financial Stability and Choice Act, an

---

[1] These individuals are noticed in their official capacities.

[2] *See* Mich. Comp. Laws § 141.1549; Letter from Gov. Rick Snyder to Mayor Dayne Walling and Flint City Council (Nov. 8, 2011), http://www.michigan.gov/documents/treasury/Flint-GovernorsDetermination-11-8-11_417435_7.pdf (attached as Ex. 1); Dawson Bell, *Governor names Flint native as city's emergency financial manager*, Detroit Free Press, Nov. 30, 2011, http://www.freep.com/article/20111130/NEWS06/111300370/Governor-names-Flint-native-city-s-emergency-financial-manager (attached as Ex. 2).

[3] Mich. Comp. Laws § 141.1549(2).

Emergency Manager has "broad powers" to "rectify the financial emergency and to assure fiscal accountability of the local government."[4]

While under control of the Emergency Manager, the City faced decisions about the future of its drinking-water supply. For fifty years, the City had purchased drinking water from the Detroit Water and Sewerage Department (Detroit), which sources water from Lake Huron.[5] In response to rising water rates charged by Detroit, in March 2013, the City Council voted to join the Karegnondi Water Authority (KWA), a newly formed municipal water supply system. The KWA was planning to build a pipeline to distribute water directly from Lake Huron to mid-Michigan communities, including Genesee County, where Flint is located.[6] The City Council's vote did not become effective until several weeks later, after both the Emergency Manager and State Treasurer approved the decision.[7]

The City's contract with Detroit was set to expire in April 2014, at least eighteen months before the KWA pipeline was scheduled to be completed.[8] Faced with a year-and-a-half gap in the City's water supply, the Emergency Manager declined to negotiate a short-term contract with Detroit and decided instead to use the Flint River as a primary drinking-water source.[9] The City had previously explored—and rejected—the Flint River as a primary drinking-water source. This is because the Flint Water Treatment Plant would have required fifty million dollars in upgrades to treat the river water and "produce finished water in conformance with the current federal and state drinking water regulations."[10]

---

[4] *Id.*

[5] *See* Dominic Adams, *Closing the valve on history: Flint cuts water flow from Detroit after nearly 50 years*, Michigan Live, Apr. 25, 2014, http://www.mlive.com/news/flint/index.ssf/2014/04/closing_the_valve_on_history_f.html (attached as Ex. 3).

[6] Steve Carmody, *Flint opting to get its future tap water from Lake Huron*, Michigan Radio, Mar. 25, 2013, http://michiganradio.org/post/flint-opting-get-its-future-tap-water-lake-huron#stream/ (attached as Ex. 4); Karegnondi Water Authority, About, http://www.karegnondi.com/#!about/c20r9 (last visited Nov. 13, 2015) (attached as Ex. 5).

[7] *See* Mich. Comp. Laws § 141.1552(1)(g), (3); Emergency Manager, Resolution to Purchase Capacity from Karegnondi Water Authority (adopted Mar. 29, 2013) (attached as Ex. 6); Letter from Andy Dillon, State Treasurer, to Edward Kurtz, Emergency Manager (Apr. 11, 2013) (authorizing Emergency Manager to enter into contract with KWA) (attached as Ex. 7).

[8] Sarah Schuch, *KWA pipeline work continues as Flint water lead concerns rise*, Michigan Live, Sept. 25, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/kwa_pipeline_projected_to_be_c.html (attached as Ex. 8); *see* Ron Fonger, *Detroit gives notice: It's terminating water contract covering Flint, Genesee County in one year*, Michigan Live, Apr. 19, 2013, http://www.mlive.com/news/flint/index.ssf/2013/04/detroit_gives_notice_its_termi.html (attached as Ex. 9).

[9] Letter from Darnell Earley, Emergency Manager, to Sue McCormick, Detroit Water & Sewer Dep't (Mar. 7, 2014) (explaining that the City "has actively pursued using the Flint River as a temporary water source" instead of accepting Detroit's offer to provide water to the City) (attached as Ex. 10).

[10] Cost of Service Study (2011), Appendix 8 to Analysis of the Flint River as a Permanent Water Supply for the City of Flint, http://www.scribd.com/doc/64382181/Analysis-of-the-Flint-River-as-a-Permanent-Water-Supply-for-the-City-of-Flint-July-2011-Appendices-1-to-8 (attached as Ex. 11);

Under the Safe Drinking Water Act's Lead and Copper Rule, Flint's water system could not use the Flint River as a water source without first obtaining approval from the Michigan Department of Environmental Quality (MDEQ). The Lead and Copper Rule required MDEQ to approve both the City's proposed addition of a new water source (the Flint River) and the long-term change in water treatment (from treatment through Detroit's water plant to treatment at the Flint Water Treatment Plant).[11] In April 2014, MDEQ approved the switch to river water.[12] The City immediately began pumping Flint River water through the City's distribution pipes and into residents' taps.

B. Dangerous lead contamination results from the City's switch to river water

In the twenty months following the switch in water sources, residents' drinking water has been at times cloudy, discolored, and foul-smelling.[13] Residents reported that they have experienced hair loss, skin rashes, and vomiting after drinking the water.[14] In the summer of 2014, the City was forced to issue several boil-water notices after tap water tested positive for total coliform bacteria.[15] The City's subsequent treatment of the water to kill disease-carrying pathogens resulted in elevated levels of total trihalomethanes, a disinfection byproduct that can cause serious health problems, including an increased risk of cancer.[16]

---

see also Kristin Longley, *Water pipeline v. Flint River: City of Flint studying its drinking water options*, Michigan Live, Jan. 22, 2011, http://www.mlive.com/news/flint/index.ssf/2011/01/water_pipeline_vs_flint_river.html (attached as Ex. 12); Dominic Adams, *Flint River now an option for drinking water following Detroit's termination of contract*, Michigan Live, July 23, 2013, http://www.mlive.com/news/flint/index.ssf/2013/07/city_readying_water_plant_to_t.html (quoting city officials' explanation for rejecting use of Flint River: "upgrades to Flint's water plant would be too expensive, the river didn't provide enough capacity to serve Flint residents' water needs and the Michigan Department of Environmental Quality would not allow it") (attached as Ex. 13).

[11] 40 C.F.R. § 141.90(a)(3); *see also id.* § 141.81(a)-(b).

[12] *See* Adams, *Closing the valve on history*, *supra* note 5 (Ex. 3).

[13] *See* Curt Guyette, *In Flint, Michigan, Overpriced Water is Causing People's Skin to Erupt in Rashes and Hair to Fall Out*, The Nation, July 16, 2015, http://www.thenation.com/article/in-flint-michigan-overpriced-water-is-causing-peoples-skin-to-erupt-and-hair-to-fall-out/ (attached as Ex. 14); Wenonah Hauter, *Flint's Brown Water Blues*, Huffington Post, July 10, 2015, http://www.huffingtonpost.com/wenonah-hauter/flints-brown-water-blues_b_7765132.html (attached as Ex. 15).

[14] Laura Gottesdiener, *Flint, Mich., residents find state water control hard to swallow*, Al Jazeera America, Apr. 3, 2015, http://america.aljazeera.com/articles/2015/4/3/flint-residents-find-state-water-control-hard-to-swallow.html (attached as Ex. 16).

[15] Ron Fonger, *Flint issues boil water advisory for section of the city after positive test result for total coliform bacteria*, Michigan Live, Sept. 5, 2014, http://www.mlive.com/news/flint/index.ssf/2014/09/flint_issues_boil_water_adviso.html (attached as Ex. 17).

[16] Robin Erb, *Who wants to drink Flint's water?*, Detroit Free Press, Jan. 23, 2015, http://www.freep.com/story/news/local/michigan/2015/01/22/water-woes-latest-hit-flint/22193291/ (attached as Ex. 18); Mich. Dep't of Envtl. Quality, Violation Notice—Maximum Contaminant Level for Total Trihalomethanes (Dec. 16, 2014) (attached as Ex. 19); U.S. EPA, Basic Information about Disinfection Byproducts in Drinking Water, http://water.epa.gov/drink/contaminants/basicinform

Because Flint River water is also highly corrosive, dangerous amounts of lead began to leach out of pipes and into the City's drinking water.[17] Lead in drinking water occurs primarily from corrosion of pipes and other plumbing materials that contain lead or lead solder.[18] The Lead and Copper Rule requires water systems to manage lead levels by controlling corrosion, which is often accomplished by adding corrosion-inhibiting chemicals.[19] Water systems must implement and maintain an "optimal" corrosion-control treatment program that "minimizes the lead . . . concentrations at users' taps."[20]

Flint did not consider how to control the corrosivity of the river water before switching water sources, nor did MDEQ require the City to implement any corrosion-control measures. Rather, beginning in April 2014, the City did not use any form of treatment to control corrosion.[21] The City waited until after its residents were drinking the river water to assess whether it posed a risk of increased lead exposure. MDEQ endorsed this approach. In June 2014, Flint's water system initiated the first of two six-month monitoring periods to test tap water for lead under the Lead and Copper Rule; the second six-month period ran from January to June 2015.[22] During these monitoring periods, the water system used flawed testing methods that appear to have been designed to underreport the lead content of residents' drinking water.[23]

---

ation/disinfectionbyproducts.cfm (last updated Dec. 13, 2013) (attached as Ex. 20); *see also* 40 C.F.R. § 141.64(b).

[17] Marc Edwards, *Test Update: Flint River water 19X more corrosive than Detroit water for Lead Solder; Now What?*, Flint Water Study (Sept. 11, 2015), http://flintwaterstudy.org/2015/09/test-update-flint-river-water-19x-more-corrosive-than-detroit-water-for-lead-solder-now-what/ (attached as Ex. 21); Marc Edwards, *Flint River water is very corrosive to lead, and causing lead contamination in homes*, Flint Water Study (Sept. 2, 2015), http://flintwaterstudy.org/2015/09/flint-rivers-water-is-very-corrosive-to-lead-and-causing-lead-contamination-in-homes/ (attached as Ex. 22). The river water is so corrosive that in October 2014, a local GM engine plant decided to switch back to Lake Huron water to avoid damage to equipment at the plant from corrosion. Brianna Owczarzak, *GM says no to Flint water*, WNEM, Oct. 14, 2014, http://www.wnem.com/story/26785625/gm-says-no-to-flint-water (attached as Ex. 23).

[18] *See* Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper, 56 Fed. Reg. 26,460, 26,464 (June 7, 1991).

[19] *See* 40 C.F.R. § 141.82.

[20] *Id.* §§ 141.2; 141.80(d).

[21] *See* Email from Pat Cook, MDEQ, to Miguel Del Toral, U.S. EPA (Apr. 24, 2015) (attached as Ex. 24).

[22] *See* 40 C.F.R. § 141.86; Email from Pat Cook, *supra* note 21 (Ex. 24).

[23] *See infra* pp. 11-13.

Flint's monitoring data showed that some residents' water contained lead at concentrations above the federal "action level" of 15 parts per billion (ppb).[24] These high lead levels put residents at risk of a broad array of serious, irreversible health effects, including cognitive impairment, kidney damage, and increased blood pressure.[25] When the Environmental Protection Agency (EPA) learned of these high lead sampling results in February 2015, it notified MDEQ officials that the sampling results raised significant concerns about corrosion from lead pipes in Flint's distribution system.[26] Nonetheless, throughout the monitoring periods, the City and MDEQ maintained that these high lead levels were isolated and that the data, taken together, demonstrated Flint's compliance with the Lead and Copper Rule.[27]

C. Community advocacy and independent testing prompt long past due response from City and State officials

As the City concluded its second six-month round of sampling in July 2015, and notified some Flint residents of elevated lead levels in their tap water, the community became increasingly concerned. A small coalition of local groups, including Water You Fighting For and Concerned Pastors for Social Action, began working with researchers at Virginia Tech to conduct their own lead sampling of Flint's water. The Virginia Tech scientists found that ten percent of the more than 250 samples collected from Flint residences had lead levels of 25 ppb or more, well above the federal action level for lead.[28] Several samples exceeded 100 ppb, and one sample exceeded 1000 ppb.[29] Though aware of

---

[24] *See* Mich. Dep't of Envtl. Quality, Lead and Copper Report and Consumer Notice of Lead Result Certificate for Community Water Supply (Aug. 20, 2015) (showing six samples with lead levels over the action level) (attached as Ex. 25); 40 C.F.R. § 141.80(c)(1).

[25] *See, e.g.*, U.S. EPA, Integrated Science Assessment for Lead tbl.ES-1 (June 2013) (attached as Ex. 26); U.S. EPA, Basic Information About Lead in Drinking Water, http://water.epa.gov/drink/contaminants/basicinformation/lead.cfm (last updated June 26, 2015) (explaining that "[i]nfants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development," and that "[a]dults who drink this water over many years could develop kidney problems or high blood pressure") (attached as Ex. 27); *see also* National Ambient Air Quality Standards for Lead, 80 Fed. Reg. 278, 290 (Jan. 5, 2015).

[26] *See, e.g.*, Email from Jennifer Crooks, U.S. EPA, to Stephen Busch, MDEQ, and Mike Prysby, MDEQ (Feb. 26, 2015) (attached as Ex. 28).

[27] *See* Nancy Kaffer, *MDEQ e-mails show stunning indifference to Flint peril*, Detroit Free Press, Oct. 22, 2015, http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/10/21/indifference-characterized-state-approach-flint-water/74289430/ (attached as Ex. 29).

[28] *Flint Town Hall Meeting Presentation and Distribution of lead results across Flint by ward and zip codes*, Flint Water Study, Sept. 16, 2015, http://flintwaterstudy.org/2015/09/distribution-of-lead-results-across-flint-by-ward-and-zip-codes/ (attached as Ex. 30); Ron Fonger, *Virginia Tech professor says Flint's tests for lead in water can't be trusted*, Michigan Live, Sept. 15, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/virginia_tech_researcher_says.html (attached as Ex. 31).

[29] Marc Edwards et al., *Lead testing results for water sampled by residents,* Flint Water Study, Sept. 28, 2015, http://flintwaterstudy.org/information-for-flint-residents/results-for-citizen-testing-for-lead-300-kits/ (attached as Ex. 32).

the Virginia Tech sampling results, MDEQ officials continued to insist that Flint's water was safe to drink.[30]

In September 2015, a medical study conducted by a local pediatrician confirmed the kinds of adverse health impacts that residents had voiced concern about for months: the rate of Flint children with elevated blood lead levels had nearly doubled since the City changed its drinking-water source.[31] State officials and the Governor reacted by "downplay[ing] and in some cases attempt[ing] to discredit" the pediatrician's findings, and dismissing citizen concerns as "near-hysteri[cal]."[32]

Subsequent testing by MDEQ revealed that at least four schools in Flint had lead levels in their drinking water above the federal action level.[33] At Freeman Elementary School, water tested had lead levels over 100 ppb, more than six times the federal action level.[34] This increase in lead exposure is particularly dangerous in Flint, a community where residents are already at higher risk of elevated blood lead levels and lead poisoning. Michigan ranks fifth worst in the country for harmful exposures to lead.[35] Low income is a risk factor for lead poisoning, and more than a third of families in Flint live below the poverty level, three times the national average.[36] Children in Flint also face high risk of lead

---

[30] Ron Fonger, *Feds sending in experts to help Flint keep lead out of water*, Michigan Live, Sept. 10, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/university_researchers_dont_dr.html (attached as Ex. 33).

[31] *Pediatric Lead Exposure in Flint, MI: Concerns from the Medical Community* (PowerPoint Presentation) (presented on Sept. 24, 2015), *available at* http://flintwaterstudy.org/2015/09/pediatric-lead-exposure-presentation-from-hurley-medical-center-doctors-concerning-flint-mi/ (attached as Ex. 34).

[32] *Study suggests Flint's water causing increased lead poisoning*, Michigan Radio, Sept. 28, 2015, http://michiganradio.org/post/study-suggests-flints-water-causing-increased-lead-poisoning#stream/0 (attached as Ex. 35); Ron Fonger, *State says data shows no link to Flint River, elevated lead in blood,* Michigan Live, Sept. 24, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/state_says_its_data_shows_no_c.html (attached as Ex. 36); *Did this Michigan Town Poison its Children?*, U.S. News & World Report, Sept. 24, 2015, http://www.usnews.com/news/articles/2015/09/25/flint-michigan-children-show-high-levels-of-lead-in-blood (attached as Ex. 37).

[33] Steve Carmody, *Four Flint schools have high lead levels in their water*, Michigan Radio, Oct. 8, 2015, http://michiganradio.org/post/four-flint-schools-have-high-lead-levels-their-water (attached as Ex. 38).

[34] *Id.*

[35] Ctrs. for Disease Control & Prevention, *Public Health in Action: Lead Poisoning Prevention in Michigan* (last updated Feb. 4, 2013), http://www.cdc.gov/nceh/information/healthy_homes_lead.htm (attached as Ex. 39).

[36] 2009-2013 American Community Survey 5-Year Estimates, 2013, *available at* http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml (enter "Flint, MI" in the box under "Community Facts," click on "Income" on left-side bar, then click "Selected Economic Characteristics" under "2013 American Community Survey") (table attached as Ex. 40 compares data from Flint, Michigan, to Michigan and the United States).

exposure from lead-paint dust, as nearly ninety percent of Flint's housing stock was built before 1978 (when the federal ban on high-lead paint went into effect).[37]

Finally, in late September 2015, the City abandoned its assertions that Flint's drinking water was safe. Nearly seven months after the City first saw dangerously high levels of lead in some residents' water, Flint issued a drinking-water advisory and called for state financial assistance to switch the water system back to Detroit's supply.[38] Two weeks later, Governor Snyder requested six million dollars from the state legislature to reconnect the Flint water system to Detroit.[39] With additional funding from the City and a private foundation, the switch was completed in mid-October.[40]

Following the switch back to Detroit water, some government officials began to ask questions about what went wrong in the course of Flint's change in water sources.[41] Governor Snyder created a task force to review water management and testing in Flint,[42] and EPA established its own task force "to provide the Agency's technical expertise through regular conversations" with the City and MDEQ.[43] Governor Snyder has also announced

---

[37] *2012 Annual Data Report on Blood Lead Levels of Children in Michigan* 26 (Apr. 30, 2013), https://www.michigan.gov/documents/mdch/2012AnnualDataReportOnBloodLeadLevels_419508_7.pdf (attached as Ex. 41); Am. Cancer Soc'y, *Lead, Lead in the Environment,* http://www.cancer.org/cancer/cancercauses/othercarcinogens/athome/lead (last updated May 27, 2014) (explaining that lead paint is a "major" source of exposure) (attached as Ex. 42); Maj. Thomas F. Zimmerman, *The Regulation of Lead-Based Paint in Air Force Housing,* 44 A.F. L. Rev. 169, 174-75 (1998).

[38] *City of Flint Issues Lead Advisory*, City of Flint, Sept. 25, 2015, https://www.cityofflint.com/2015/09/25/city-of-flint-issues-lead-advisory/ (attached as Ex. 43); Steve Carmody, *Flint officials exploring return to Detroit water*, Michigan Radio, Sept. 28, 2015, http://michiganradio.org/post/flint-officials-exploring-return-detroit-water#stream/0 (attached as Ex. 44).

[39] John Wisely, *Snyder announces $12 million plan to fix Flint water*, Detroit Free Press, Oct. 8, 2015, http://www.freep.com/story/news/local/michigan/2015/10/08/snyder-flint-water-reconnect/73567778/ (attached as Ex. 45).

[40] Amanda Emery, *Flint reconnects to Detroit water, may take 3 weeks to clear all pipes*, Michigan Live, Oct. 16, 2015, http://www.mlive.com/news/flint/index.ssf/2015/10/flint_reconnecting_to_detroit.html (attached as Ex. 46).

[41] *E.g.*, Letter from Sen. Jim Ananich, Mich. Senate Minority Leader, to Susan Hedman, U.S. EPA, and Gina McCarthy, U.S. EPA (Oct. 21, 2015) (attached as Ex. 47); Letter from Rep. Daniel Kildee, U.S. Congressman, to Gina McCarthy, U.S. EPA (Oct. 21, 2015) (attached as Ex. 48).

[42] Press Release, Gov. Rick Snyder, *Gov. Rick Snyder announces Flint Water Task Force to review state, federal and municipal actions, offer recommendations* (Oct. 21, 2015), http://www.michigan.gov/snyder/0,4668,7-277-57577_57657-367761--,00.html (attached as Ex. 49).

[43] Press Release, U.S. EPA, *EPA Establishes Safe Drinking Water Task Force to Provide Technical Expertise to MDEQ and City of Flint* (Oct. 16, 2015), http://yosemite.epa.gov/opa/admpress.nsf/0/A92DE629DB86E66685257EE000579593 (attached as Ex. 50).

plans to launch an "education campaign soon to help schools statewide learn how to get their water tested" for lead.[44]

Despite this proliferation of task forces and campaigns, neither the City nor MDEQ has announced changes in the City's lead monitoring practices in the wake of Flint's public-health crisis. Rather, Flint and MDEQ have maintained that these practices are accurate and adequate, despite the near certainty that they are underrepresenting lead contamination in many of Flint's high-risk homes.

II. City and State officials are in violation of the Safe Drinking Water Act's Lead and Copper Rule

The Safe Drinking Water Act (the Act) authorizes citizens to sue any governmental entity "who is alleged to be in violation of any requirement" under the statute.[45] These requirements include the national primary drinking-water regulations for lead and copper set forth in the Lead and Copper Rule.[46] The Lead and Copper Rule obligates water systems to monitor and control for lead in drinking water.[47]

Since April 2014, Flint's water system has failed to comply with the Lead and Copper Rule's requirements for monitoring water for lead, notifying the public of tap-water monitoring results, reporting monitoring results to MDEQ, and controlling corrosion from lead pipes.[48] These violations systematically result in the City's underestimating lead levels in its drinking water, masking a public-health crisis. The violations are ongoing and likely to recur in the future: Flint's water system presently is obligated to monitor for lead every six months, and there is no indication that Flint has changed or disavowed its inadequate approach to monitoring.[49]

---

[44] *See* Lori Higgins, *Michigan to launch lead education effort statewide*, Detroit Free Press, Oct. 13, 2015, http://www.freep.com/story/news/local/michigan/2015/10/13/lead-water-flint-michigan-testing/73871480/ (attached as Ex. 51).

[45] 42 U.S.C. § 300j-8(a)(1).

[46] *See id.* § 300g-1(b)(1)(A); 40 C.F.R. § 141.80(a)(1).

[47] *See, e.g.*, 40 C.F.R. § 141.86.

[48] Flint's water system is subject to the requirements of the Lead and Copper Rule because it is a "community water system" not otherwise exempted from the regulations. 40 C.F.R. §§ 141.80(a)(1), 141.2.

[49] *See Tamaska v. City of Bluff City*, 26 F. App'x 482, 485 (6th Cir. 2002) (citing *Chesapeake Bay Found. v. Gwaltney of Smithfield*, 844 F.2d 170, 171–72 (4th Cir.1988)). A water system is required to monitor tap water for lead every six months if it (1) exceeds the action level for any monitoring period, or (2) "fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the State … for more than 9 days in any six-month period." 40 C.F.R. § 141.86(d)(4)(vi)(B). Flint's water system failed to maintain applicable values of orthophosphate and/or pH designated as the optimal water quality parameters by MDEQ. In addition, had the water system conducted monitoring in compliance with the Lead and Copper Rule during the January to June 2015 period, it likely would have exceeded the lead action level.

Under the Act, a "supplier of water" is "any person who owns or operates a public water system."[50] The City of Flint owns Flint's water system.[51] Upon information and belief, the State officials administering Flint's receivership and the City presently operate Flint's water system. As discussed above, Flint's Emergency Manager exercised the authority of the local government in the place of Flint's mayor and city council. The Emergency Manager managed the water system and conducted its affairs, including making the decision to use the Flint River as a primary drinking-water source.[52] In April 2015, Governor Snyder removed the Emergency Manager and appointed a Receivership Transition Advisory Board to oversee the City's affairs until the receivership is terminated.[53] The Board has control over the City's budget, and must approve all decisions adopted by the City Council.[54] The Michigan Local Financial Stability and Choice Act requires the State Treasurer to sit on a receivership transition advisory board for any municipality for which the governor appoints such a board, and Governor Snyder has appointed the State Treasurer (or his designee) to chair Flint's Board.[55] The City Administrator reports to the Board, manages the City's daily administrative operations, and directs City department heads in carrying out the daily activities of the City.[56] To date, the City remains in receivership, and its actions remain subject to approval of the Board.[57]

Accordingly, the City of Flint; Governor Snyder; Dan Wyant, Director of MDEQ; Nick A. Khouri, Treasurer of Michigan; Frederick Headen, Chairperson of the Flint Receivership Transition Advisory Board; Brian Larkin, David McGhee, Robert McMahan,

---

[50] 42 U.S.C. § 300f(5).

[51] *See* City of Flint, Water System Update, Sept. 2015, https://www.cityofflint.com/wp-content/uploads/City-Council-Water-Presentation-9-14-2015.pdf (attached as Ex. 52).

[52] *See United States v. Twp. of Brighton*, 153 F.3d 307, 314 (6th Cir. 1998) (defining "operator" for purposes of CERCLA as an entity that "performed some affirmative acts," such as "directing the workings, managing, or conducting the affairs" of a facility) (internal quotation marks and alterations omitted); *cf. United States v. Alisal Water Corp.*, 114 F. Supp. 2d 927, 938 (N.D. Cal. 2000) (applying case law discussing CERCLA "operator" liability to the Safe Drinking Water Act context).

[53] Mich. Comp. Laws § 141.1563(1); Press Release, Gov. Rick Snyder, *Gov. Rick Snyder: City of Flint ready to move forward as financial emergency resolved*, Apr. 29, 2015, http://www.michigan.gov/snyder/0,4668,7-277-57577_57657-353433--,00.html (attached as Ex. 53); Emergency Manager Order 20 ¶¶ 4.a.6, 4.a.7 (adopted Apr. 25, 2015), https://www.cityofflint.com/wp-content/uploads/Order-No.-20.pdf (attached as Ex. 54).

[54] Emergency Manager Order 20 ¶¶ 4.a.6, 4.a.7, *supra* note 53 (Ex. 54).

[55] *See* Mich. Comp. Laws § 141.1563(2); Letter from Gov. Rick Snyder to Hon. Ruth Johnson, Mich. Sec'y of State (Apr. 29, 2015), http://michigan.gov/documents/treasury/Flint_RTAB_Appointments_488251_7.pdf (attached as Ex. 55).

[56] Emergency Manager Order 3 ¶¶ 4-6, 25 (adopted Apr. 10, 2015), https://www.cityofflint.com/wp-content/uploads/Order-No.-3.pdf (attached as Ex. 56). The City Administrator was appointed by the Emergency Manager and can be removed only with the Board's consent.

[57] *Id.*

and Beverly Walker-Griffea, Members of the Board; and Natasha Henderson, Flint City Administrator, are responsible for the violations of the Act by Flint's water system which have endangered and will continue to endanger the health of Flint's residents.

A. Flint's water system is in violation of the Lead and Copper Rule's tap-water monitoring, reporting, and notification requirements

The Lead and Copper Rule requires water systems to identify a pool of sampling sites prior to the commencement of a monitoring period.[58] This requirement is designed to target residences at high risk of lead contamination in drinking water, such as homes served by lead service lines.[59] In violation of the Rule, Flint's water system does not select sampling sites for lead monitoring based on a pre-established sampling pool. For Flint's most recent completed monitoring period, January–June 2015, the Director of the City's Department of Public Works admitted that Flint "thr[ew] bottles out everywhere just to collect as many [samples] as we can, to try and hit our number."[60] Similarly, email correspondence shows that the City has, during several monitoring periods, asked its own employees to submit tap-water samples, without regard to whether the employees were part of a pre-selected sampling pool.[61]

Under the Lead and Copper Rule, water systems that contain lead service lines also must draw fifty percent of their tap-water samples from sites served by a lead service line.[62] Flint's water system does not comply with this requirement. The water system reported to MDEQ that all the sample sites it used during the January–June 2015 monitoring period were residences served by lead service lines.[63] Flint's Utilities Administrator, however, admitted that he was not able to verify that all homes sampled were served by lead service lines.[64] This is because City records concerning the locations of lead service lines in the distribution system are stored on 45,000 paper notecards. Flint began converting these notecards into an electronic spreadsheet this fall, well after the January–June 2015 monitoring period.[65]

---

[58] *See* 40 C.F.R. § 141.86(a).

[59] *Id.*

[60] *See* ACLU of Michigan, *Thirst for Truth: Who's to Blame for Flint Water Crisis?*, https://www.youtube.com/watch?t=9&v=LTO9irD2f0Y (posted Sept. 23, 2015).

[61] Email from Michael Glasgow, Flint Utilities Adm'r, to Flint municipal staff (June 1, 2015) (attached as Ex. 57).

[62] 40 C.F.R. § 141.86(a)(8).

[63] *See, e.g.*, City of Flint, Lead and Copper Report and Consumer Notice of Lead Result Certificate for Community Water Supply (July 28, 2015) [hereinafter July 28 Report] (attached as Ex. 58).

[64] *See* ACLU of Michigan, *Thirst for Truth: Who's to Blame for Flint Water Crisis?*, *supra* note 60.

[65] *See* Ron Fonger, *Flint data on lead water lines stored on 45,000 index cards*, Michigan Live, Oct. 1, 2015, http://www.mlive.com/news/flint/index.ssf/2015/10/flint_official_says_data_on_lo.html (attached as Ex. 59).

Flint's water system has also failed to sample the same sites across monitoring periods or document the reasons for declining to sample the same sites, as the Lead and Copper Rule requires.[66] Sampling new sites from one monitoring period to the next is permitted only if a site "is no longer accessible" to the water system or "no longer fits the requirements of a priority site."[67] Records show that in the January–June 2015 monitoring period, Flint's water system retested only thirteen of the one hundred sites it sampled in the previous monitoring period.[68] It did not provide the required explanation for these departures from the previous monitoring period's sampling sites.[69] Upon information and belief, Flint's water system concentrated its monitoring in areas where it anticipated low lead levels, due to recent infrastructure improvements, and selectively retested sites that had previously yielded low lead levels. Such selective sampling violates the Lead and Copper Rule's intention that water systems "do not use only those sampling locations with the lowest lead or copper levels."[70]

Flint's instructions to residents for the collection of tap-water samples also violate the Lead and Copper Rule. The Rule allows residents to collect the tap-water samples used to monitor lead in drinking water, so long as the water system instructs residents of the sampling procedures required by the regulations.[71] Tap-water samples must be "first-draw samples," meaning that the sample must be collected after water in the tap has stood motionless in the plumbing system for at least six hours.[72] Flint's instructions direct residents to flush their taps for five minutes prior to letting the water sit for the six required hours. This "pre-flushing" has been shown to "result in the minimization of lead capture and significant underestimation of lead levels in drinking water."[73] The water system's pre-flush instruction "negates the intent of the [Lead and Copper Rule] to collect compliance

---

[66] 40 C.F.R. § 141.86(b)(4).

[67] U.S. EPA, *Lead and Copper Rule Monitoring and Reporting Guidance for Public Water Systems* 25 (Mar. 2010), http://water.epa.gov/lawsregs/rulesregs/sdwa/lcr/upload/Revised-Lead-and-Copper-Rule-Monitoring-and-Reporting-Guidance-for-Public-Water-Systems.pdf (attached as Ex. 60).

[68] *See* July 28 Report, *supra* note 63 (reporting that the same sample sites were not used) (Ex. 58); *see also* Curt Guyette, *Lead Astray: An ACLU of Michigan investigation has found a stream of irregularities in Flint's water tests*, Michigan Democracy Watch Blog, Sept. 14, 2015, http://aclumich.org/democracywatch/index.php/entry/lead-astray-an-aclu-of-michigan-investigation-has-found-a-stream-of-irregularities-in-flint-s-water-tests (attached as Ex. 61).

[69] 40 C.F.R. § 141.90(a)(1)(v).

[70] U.S. EPA, *Lead and Copper Rule Monitoring and Reporting Guidance for Public Water Systems*, *supra* note 67, at 25 (Ex. 60).

[71] 40 C.F.R. § 141.86(b)(2).

[72] *Id.* §§ 141.2, 141.86(b)(2).

[73] Mem. from Miguel Del Toral, U.S. EPA, to Thomas Poy, U.S. EPA, at 2 (June 24, 2015) (attached as Ex. 62).

samples under 'worst-case' conditions,"[74] and goes "against the intent of the monitoring protocol, since it changes the normal water use of the homeowners in the sample."[75]

Flint's water system is violating the Lead and Copper Rule's reporting requirements by representing to MDEQ that Flint's monitoring practices are in compliance with the Rule. The City's water system did not provide documentation to MDEQ justifying its selection of new sample sites in the January–June 2015 monitoring period, and, upon information and belief, is not accurately reporting information concerning whether sampled sites meet required regulatory criteria.[76]

The Lead and Copper Rule also requires Flint's water system to notify each resident whose tap water was sampled of the lead results.[77] Upon information and belief, Flint has failed and continues to fail to properly notify all residents whose tap water was tested for lead of the individual monitoring results.

B. Flint's water system has failed to maintain optimal corrosion-control treatment

The Lead and Copper Rule required all large public water systems, including Flint's water system, to install an "optimal corrosion control treatment" program by January 1, 1997.[78] After a system has optimized its corrosion-control treatment, the regulations require the system to "continue to operate and maintain optimal corrosion control treatment."[79] Since April 2014, Flint's water system has not maintained an optimal corrosion-control treatment program. Historically, the water system complied with the corrosion-control requirements by purchasing treated water from Detroit. When Flint switched its water source to the Flint River in April 2014, it did nothing to treat the Flint River water to control corrosion. This failure to maintain optimized corrosion control violates the Lead and Copper Rule.

Although Flint's water system has resumed its purchase of treated water from Detroit, it has not disavowed its erroneous interpretation of the Lead and Copper Rule's corrosion-control requirements. Nor has it committed to maintaining optimized corrosion control when it switches water sources again this summer to the KWA pipeline. Flint's water system's failure to maintain an optimized corrosion-control treatment program is likely to recur in the future.

---

[74] *Id.*

[75] Letter from Cynthia Dougherty, U.S. EPA, to Ralph Scott, Alliance for Healthy Homes (Sept. 12, 2008) (attached as Ex. 63).

[76] *See* 40 C.F.R. § 191.90(a)(1)(i), (a)(1)(v); *supra* pp. 11-12.

[77] 40 C.F.R. § 141.85(d)(1).

[78] *Id.* § 141.81(d)(4).

[79] *Id.* § 141.82(g).

III. The State of Michigan's failure to maintain a schools testing and remediation program violates the Safe Drinking Water Act

The Act requires each state to establish a program "to assist" schools and day care centers in "testing for, and remedying, lead contamination in drinking water."[80] Test results must be made available at schools, with notification to parents and teachers.[81] Michigan, upon information and belief, does not maintain a program for school lead testing, remediation, and notification.[82] Accordingly, Governor Snyder and MDEQ Director Wyant are presently in violation of the Act's schools provision.[83]

IV. Intent to Sue

The City of Flint and Michigan state officials have been and continue to be in violation of the Lead and Copper Rule's requirements for monitoring and sampling tap water for lead, notifying the public of and reporting to the State tap-water monitoring results, and corrosion control. Governor Snyder and MDEQ Director Dan Wyant are in violation of the Act's requirement to maintain a program to assist Michigan schools with testing and remediating lead in school drinking water. These violations are likely to continue and to recur in the future absent a judicial decree ordering City and State officials to comply with the Act. If the City of Flint and the Michigan state officials identified above fail to cure their noncompliance with the Act within sixty days, Concerned Pastors for Social Action, Melissa Mays, ACLU of Michigan, and NRDC will file suit in federal district court seeking declaratory relief, injunctive relief, and litigation costs, as appropriate.

The name, address, and telephone number of each person giving notice pursuant to this letter are:

Concerned Pastors for Social Action
2200 Forrest Hill
Flint, MI 48504
(810) 394-6787
Attention: Pastor Allen Overton

---

[80] 42 U.S.C. § 300j-24(d)(1).

[81] *Id.* § 300j-24(d)(2).

[82] Although MDEQ recently announced "an education campaign" to help Michigan schools learn how to test their water for lead, MDEQ has yet to release the details of this effort, including whether it will offer the kind of assistance with testing, remediation, and notification contemplated by the Safe Drinking Water Act. *See* Higgins, *Michigan to launch lead education effort statewide*, *supra* note 44 (Ex. 51).

[83] MDEQ has primary enforcement authority in Michigan for the Safe Drinking Water Act. *See* MDEQ, Drinking Water, http://www.michigan.gov/deq/0,4561,7-135-3313_3675---,00.html (last visited Nov. 13, 2015) (attached as Ex. 64).

Melissa Mays
3714 Beecher Road
Flint, MI 48503

American Civil Liberties Union of Michigan
2966 Woodward Avenue
Detroit, MI 48103
(313) 578-6814
Attention: Michael Steinberg

Natural Resources Defense Council
1152 15th Street, NW, Suite 300
Washington, DC 20005
(202) 289-2385
Attention: Dimple Chaudhary

Do not hesitate to contact us if you would like to discuss this matter.

Respectfully,

Dimple Chaudhary
Natural Resources Defense Council
1152 15th Street, NW, Suite 300
Washington, DC 20005
(202) 289-2385

Sarah Tallman
Anjali Waikar
Evan Feinauer
Natural Resources Defense Council
20 North Wacker Drive, Suite 1600
Chicago, IL 60606
(312) 651-7918

Counsel for Concerned Pastors for Social Action, Melissa Mays, and Natural Resources Defense Council

Michael Steinberg
Brooke Tucker
American Civil Liberties Union of Michigan
2966 Woodward Avenue
Detroit, MI 48103
(313) 578-6814

Counsel for American Civil Liberties Union of Michigan

Enclosure

cc:

Administrator Gina McCarthy
U.S. EPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, NW
Mail Code: 1101A
Washington, DC 20460
McCarthy.gina@Epa.gov

Regional Administrator Susan Hedman
U.S. EPA Region 5
77 West Jackson Boulevard
Mail Code: R-19J
Chicago, IL 60604
Hedman.susan@Epa.gov

Attorney General Bill Schuette
State of Michigan
G. Mennen Williams Building, 7th Floor
525 W. Ottawa Street
P.O. Box 30212
Lansing, MI 48909
miag@michigan.gov

From: Rich Baird [redacted]
Sent: Friday, November 20, 2015 11:01 AM
To: Redford, James (GOV)
Subject: Fwd: Flint water

Sent from my Verizon Wireless 4G LTE DROID
---------- Forwarded message ----------
From: Andy Dillon [redacted]
Date: Nov 20, 2015 10:53 AM
Subject: Fwd: Flint water
To: Richard Baird [redacted]
Cc:

Will send in around 3. Its my preliminary draft.

Andy Dillon
Conway MacKenzie Inc.
401 S. Old Woodward Avenue, Suite 340, Birmingham, MI 48009
248.952.8868 (office) | [redacted] 248.433.3143 (fax)
[redacted]

---------- Forwarded message ----------
From: **Andy Dillon** [redacted]
Date: Fri, Nov 20, 2015 at 10:50 AM
Subject: Re: Flint water
To: Andy Dillon [redacted], Kelly Rossman-McKinney
[redacted]

Draft response

I am providing my the comments below based on my memory of events that transpired over two years ago. I have not reviewed the reports, emails, memos relating to these events and my recollections would likely change after refreshing my memory with the relevant documents.

First, it is important to understand Flint's decision to join the KWA was a separate and distinct decision from using the Flint River. After we signed off on Flint joining the KWA, Flint was to negotiate with the DWSD regarding using their water during the construction of the KWA. If they were unable to negotiate a fair deal, I recall their back up plan was to use the Flint River. I don't recall Treasury being involved in the negotiations with DWSD or being advised that the negotiations broke down and Flint switched to the Flint River.

Treasury held two and possibly three lengthy meetings to go over the Tucker Young report with the DEQ. The DEQ didn't agree with TY's report and identified several flaws in their assumptions which TY was unable to refute. The reason for the multiple meetings was to make sure our siding with the DEQ over TY was the correct decision. The reports were dependent upon engineering/construction related issues which were not the forte of Treasury so we relied on the advice and counsel of both TY and DEQ where the appropriate expertise resided to assist us in making this decision.

TY's largest customer was the DWSD and DWSD did not like the KWA project. We didn't assume that factored into the TY findings but it was on our radar. We didn't believe the DEQ had any agenda so their conclusion together with TY's reliance on some flawed assumptions, led us to side w/ the DEQ's opinion. The flawed assumptions related as best I can recall on redundancy requirements that TY assumed the DEQ would demand which the DEQ said would not be required. Once eliminated, the TY reports findings were undermined.

I recall Treasury needed to approve the EM's decision to join the KWA (again not to approve Flint using the Flint River).

I recall we were getting a lot of pressure from County and City officials to approve Flint joining the KWA. The decision had a deadline because whether Flint joined the project affected the size of the pipe that would bring in the water and the KWA needed to know if Flint would participate to purchase the correct pipe size.

I recall advising the Governor's office of these events because my initial instincts were not to authorize Flint joining the KWA for two reasons: 1) Flint was not in a financial position to assume any financial risk re: the project; and 2) Detroit was also in financial distress and I didn't think DWSD losing approximately 5% of their revenues was a good thing for them.

Because I thought Treasury would go against local sentiment that heavily favored KWA, I thought the Governor's office should be aware of the potential political fallout.

I also wanted the Governor's office involved because I didn't think Treasury had the expertise to make this decision and as such we would need help from the DEQ and I wanted them to support the collaboration between the two departments.

I never received any pressure from the Governor's office to decide one way or the other on approving the KWA. We followed the process described above and made a decision based upon what we thought was in the best interests of Flint. The decision to support KWA was influenced by our conclusion that there was no financial risk to Flint for the project and the DEQ's conclusion that it was more economical for Flint to join KWA (again a separate and distinct decision from using the Flint River). The fact this conclusion was what the local officials wanted was a bonus.

I don't recall specific conversations on the dates and times you referenced. I do know there were many discussions regarding this topic between Treasury, DEQ and the Governor's office and the facts and circumstances re: KWA led to a clear consensus that the state should not block Flint's desire to join the KWA.

Andy Dillon
Conway MacKenzie Inc.
401 S. Old Woodward Avenue, Suite 340, Birmingham, MI 48009

248.952.8868 (office) | [redacted] 248.433.3143 (fax)
[redacted]

On Thu, Nov 19, 2015 at 6:13 PM, Egan, Paul <pegan@freepress.com> wrote:
The story is for the weekend Andy so Friday would be OK got a response, hopefully before 4 p.m.
Thank you,
Paul

Sent from my iPhone

On Nov 19, 2015, at 6:02 PM, Andy Dillo [redacted] wrote:

I am writing to advise I received your email.

Based upon past experience, curious if you needed an answer today or if an answer tomorrow will suffice.

Obviously, there is a trust issue lacking on my side.

As you know, it was a long time ago so details are not all that fresh but I will consider providing a response to the best of my memory if the story isn't already written.

Andy Dillon
Conway MacKenzie Inc.
401 S. Old Woodward Avenue, Suite 340, Birmingham, MI 48009
248.952.8868 (office) | [redacted] 248.433.3143 (fax)
[redacted]

On Thu, Nov 19, 2015 at 1:48 PM, Egan, Paul [redacted] wrote:

Hi Andy: Why did the state and city opt to go with KWA for Flint water supply when the study you commissioned from Tucker, Young, Jackson, Tull found that going with KWA would be more costly than staying with DWSD? (Here is excerpt from p. 17):

"Based on the analysis, it is prudent to assume the KWA water supply option costs would be somewhere

between the KWA-1 and KWA-2 options. Therefore, the analysis indicates that the two DWSD options

of supplying 8 MGD on a maximum day and up to 8 MGD on average are the least cost options for Flint.

These options allow Flint to maximize the use of existing assets; the City of Flint's (the Flint WTP) and

DWSD's (the existing 72-inch main)."

How would you describe your role in the chain of decisions that led to Flint drawing its water supply from the Flint River?

The Flint City Council opted to go with the KWA on the evening of March 25, 2013. Your schedule shows you had a 5 p.m. phone conversation at 5 p.m. that day with Dennis Muchmore "regarding Flint Water Supply alternatives."

The next day, March 26, 2013, your schedule shows a 9 a.m. meeting at Treasury "regarding Flint water, a 1:30 p.m. phone call with Dan Wyant "regarding Flint/KWA," and a w p.m. meeting in Lansing with Flint Mayor Dayne Walling?

What do you recall about these conversations/meetings? Did Muchmore sign off on the switch to KWA on behalf of the governor?

Thanks, Paul Egan

Detroit Free Press

[redacted]

From: Rich Baird <[redacted]>
Sent: Friday, November 20, 2015 11:12 AM
To: Redford, James (GOV)
Subject: Fwd: Freep

Sent from my Verizon Wireless 4G LTE DROID
---------- Forwarded message ----------
From: Andy Dillon <[redacted]>
Date: Nov 20, 2015 11:10 AM
Subject: Freep
To: Andy Dillon <[redacted]>,Kelly Rossman-McKinney
[redacted]
Cc:

Draft response (I added some health and safety comments to the prior version)

I am providing my the comments below based on my memory of events that transpired over two years ago. I have not reviewed the reports, emails, memos relating to these events and my recollections would likely change after refreshing my memory with the relevant documents.

First, it is important to understand Flint's decision to join the KWA was a separate and distinct decision from using the Flint River. After we signed off on Flint joining the KWA, Flint was to negotiate with the DWSD regarding using their water during the construction of the KWA. If they were unable to negotiate a fair deal, I recall their back up plan was to use the Flint River. I don't recall Treasury being involved in the negotiations with DWSD or being advised that the negotiations broke down and Flint switched to the Flint River. I don't recall any discussions that suggested there would be a safety risk associated with the decision to join the KWA. Again, because using the Flint River was not before Treasury whether there were health and safety issues associated with that decision was not before Treasury.

Treasury held two and possibly three lengthy meetings to go over the Tucker Young report with the DEQ. The DEQ didn't agree with TY's report and identified several flaws in their assumptions which TY was unable to refute. The reason for the multiple meetings was to make sure our siding with the DEQ over TY was the correct decision. The reports were dependent upon engineering/construction related issues which were not the forte of Treasury so we relied on the advice and counsel of both TY and DEQ where the appropriate expertise resided to assist us in making this decision.

TY's largest customer was the DWSD and DWSD did not like the KWA project. We didn't assume that factored into the TY findings but it was on our radar. We didn't believe the DEQ had any agenda so their conclusion together with TY's reliance on some flawed assumptions, led us to side w/ the DEQ's opinion. The flawed assumptions related as best I can recall on redundancy requirements that TY assumed the DEQ would demand which the DEQ said would not be required. Once eliminated, the TY reports findings were undermined.

I recall Treasury needed to approve the EM's decision to join the KWA (again not to approve Flint using the Flint River).

I recall we were getting a lot of pressure from County and City officials to approve Flint joining the KWA. The decision had a deadline because whether Flint joined the project affected the size of the pipe that would bring in the water and the KWA needed to know if Flint would participate to purchase the correct pipe size.

I recall advising the Governor's office of these events because my initial instincts were not to authorize Flint joining the KWA for two reasons: 1) Flint was not in a financial position to assume any financial risk re: the project; and 2) Detroit was also in financial distress and I didn't think DWSD losing approximately 5% of their revenues was a good thing for them.

Because I thought Treasury would go against local sentiment that heavily favored KWA, I thought the Governor's office should be aware of the potential political fallout.

I also wanted the Governor's office involved because I didn't think Treasury had the expertise to make this decision and as such we would need help from the DEQ and I wanted them to support the collaboration between the two departments.

I never received any pressure from the Governor's office to decide one way or the other on approving the KWA. We followed the process described above and made a decision based upon what we thought was in the best interests of Flint. The decision to support KWA was influenced by the absence of any health and safety risks raised by our advisors and our conclusion that there was no financial risk to Flint for the project and the DEQ's conclusion that it was more economical for Flint to join KWA (again a separate and distinct decision from using the Flint River). The fact this outcome was what the local officials wanted was a bonus from Treasury's perspective.

I don't recall specific conversations on the dates and times you referenced. I do know there were many discussions regarding this topic between Treasury, DEQ and the Governor's office and the facts and circumstances re: KWA led to a clear consensus there was no articulated reason to block Flint's desire to join the KWA.

Andy Dillon
Conway MacKenzie Inc.
401 S. Old Woodward Avenue, Suite 340, Birmingham, MI 48009
248.952.8868 (office) | [redacted] 248.433.3143 (fax)
[redacted]

From: Baird, Richard (GOV)
Sent: Monday, December 07, 2015 3:53 PM
To: Redford, James (GOV)
Subject: Attorney Client Privileged document--FW: Flint Water Advisory Task Force Recommendation
Attachments: KRS version of Snyder Letter 2 (1).docx

Follow Up Flag: Follow up
Flag Status: Flagged

FYI

From: Ken Sikkema [mailto:ksikkema@pscinc.com]
Sent: Monday, December 07, 2015 3:31 PM
To: Snyder, Rick (GOV)
Cc: Chris Kolb; Matt Davis; Lawrence Reynolds; Eric Rothstein; Baird, Richard (GOV)
Subject: Flint Water Advisory Task Force Recommendation

Dear Governor Snyder:

We want to thank you for the recent conference call between members of the Flint Water Advisory Task Force (FWATF), yourself, and members of your administration. Attached is a follow-up letter to that conference call outlining an initial set of recommendations that we believe should be implemented in the very near future to focus the state's efforts to protect the public health in Flint.

We both acknowledge and appreciate your personal interest in this issue and your commitment, not only to assisting the Task Force in our review, but--most importantly--to ensuring that the full measure of state resources are brought forward to protect the public health in Flint and throughout the state.

Respectfully,

Ken Sikkema

Ken Sikkema
Senior Policy Fellow
Public Sector Consultants
[redacted]
ksikkema@pscinc.com

December 7, 2015

Dear Governor Snyder:

On Wednesday, November 18, 2015, the Flint Water Advisory Task Force met with representatives of the Michigan Department of Environmental Quality (MDEQ) and the Michigan Department of Health and Human Services (MDHHS) to discuss elements of the 10-point Action Plan designed to address various issues related to the ongoing public health protection challenges precipitated by lead in the Flint water supply. These discussions were held at our request as part of our task to make recommendations to prevent a similar occurrence in Flint or elsewhere, and also to monitor ongoing mitigation efforts.

Subsequent to those meetings, on Tuesday, November 24, 2015, members of the Task Force participated in a conference call with yourself, members of the Administration, and representatives of these agencies to discuss the progress to date on the 10-point Action Plan, as well as several other related issues.

We want to acknowledge the steps that have already been taken to implement the action plan, specifically in the areas of outreach efforts to facilitate blood lead testing for children, communication with health care providers in the Flint community about the importance of testing children for lead, and the training of additional public health nurses in the Genesee County Health Department. We do believe, however, that additional steps need to be taken to reach additional children for blood lead testing, assure proper follow-up with children found to have elevated blood lead levels, and to continue water testing. We will continue to assess state and local efforts and make recommendations regarding specific steps that we believe are warranted.

One primary concern we have at this point is that the current efforts appear to be taking place in the absence of a larger project coordination framework that measures results and clearly delineates responsibilities for continuing actions to protect public health. We believe the state is best positioned to facilitate this larger framework, which should address the following:

1. The need for MDHHS and MDEQ—and, possibly, other state agencies--to set **goals** for actions in collaboration with local and federal agencies and organizations.
2. The need for a set of corresponding **timelines** for the goals.
3. The need to establish **responsibility** for meeting the goals in a timely fashion and for **contingency plans** for the state if the goals are not being met.
4. The need for clear, regular **communication** with the Flint community and stakeholder groups regarding action steps and updates.

We also believe it important that a single person or entity—potentially independent of any one particular state agency and mutually agreeable to this Task Force and you, Governor—be established to provide effective coordination of ongoing activities and reporting on the status of mitigation measures. For this, we also believe a readily understood “dashboard” should be developed that reports on the goals, timelines and assignments. This will enable members of the Flint community, public health providers, and state agencies to know about the status of the Flint water crisis mitigation program, as well as promote coordination and accountability. The Task Force is prepared to assist in the development of that dashboard.

We believe it is vitally important that trusted members of the Flint community be engaged in communication on this issue, as well as the distribution of information conveyed by our suggested dashboard reporting. Accordingly, in advance of our final report, we would like to ensure the independent coordinator suggested above engage trusted community groups to begin rebuilding community trust in state actions.

We appreciate your personal interest in this issue, commitment to assisting the Task Force in our review, and—most importantly—commitment to ensuring that the full measure of state resources are brought forward to protect the public health in Flint and throughout the state.

Respectfully yours,

Flint Water Advisory Task Force:

Dr. Matt Davis

Chris Kolb

Dr. Larry Reynolds

Eric Rothstein

Ken Sikkema

From: Baird, Richard (GOV)
Sent: Monday, December 28, 2015 6:01 PM
To: Redford, James (GOV); Agen, Jarrod (GOV); Holland, Meegan (GOV); Hollins, Harvey (GOV)
Subject: Fwd: Letter to the Governor

I would suggest a concall with us tonight.

Sent from my Verizon Wireless 4G LTE DROID
---------- Forwarded message ----------
From: Ken Sikkema [redacted]
Date: Dec 28, 2015 4:34 PM
Subject: Letter to the Governor
To: "Baird, Richard (GOV)" <bairdr@michigan.gov>
Cc: Chris Kolb [redacted]

Rich:

I want to give you a heads up: the Task Force will be sending a letter to the Governor tomorrow am that states the primary---not the only, but certainly the primary--responsibility for the Flint Water crisis lies at the feet of the MDEQ. We will address three failures: (1) regulatory culture in the Office of Drinking Water and Municipal Assistance; (2) inappropriate and unacceptable public response; and (3) inadequate application of the Lead and Copper Rule.

We address the critical and urgent need to establish responsibility and hold individuals accountable as soon as possible.

It is our intent to send the letter via email tomorrow, with a public release Wednesday am...

The Task Force--both individually and collectively--feel strongly about the need for us to be on record now rather than later.

Don't hesitate to contact me if you have any questions.

Ken Sikkema

--

Ken Sikkema
Senior Policy Fellow

From: Agen, Jarrod (GOV)
Sent: Monday, December 28, 2015 6:03 PM
To: Baird, Richard (GOV)
Cc: Redford, James (GOV); Holland, Meegan (GOV); Hollins, Harvey (GOV)
Subject: Re: Letter to the Governor

Yes, let's talk asap.

On Dec 28, 2015, at 6:00 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:

> I would suggest a concall with us tonight.
>
> *Sent from my Verizon Wireless 4G LTE DROID*
> ---------- Forwarded message ----------
> From: Ken Sikkema [redacted]
> Date: Dec 28, 2015 4:34 PM
> Subject: Letter to the Governor
> To: "Baird, Richard (GOV)" <bairdr@michigan.gov>
> Cc: Chris Kolb [redacted]
>
> Rich:
>
> I want to give you a heads up: the Task Force will be sending a letter to the Governor tomorrow am that states the primary---not the only, but certainly the primary--responsibility for the Flint Water crisis lies at the feet of the MDEQ. We will address three failures: (1) regulatory culture in the Office of Drinking Water and Municipal Assistance; (2) inappropriate and unacceptable public response; and (3) inadequate application of the Lead and Copper Rule.
>
> We address the critical and urgent need to establish responsibility and hold individuals accountable as soon as possible.
>
> It is our intent to send the letter via email tomorrow, with a public release Wednesday am...
>
> The Task Force--both individually and collectively--feel strongly about the need for us to be on record now rather than later.
>
> Don't hesitate to contact me if you have any questions.
>
> Ken Sikkema

--

Ken Sikkema
Senior Policy Fellow
Public Sector Consultants
[redacted]

From: Holland, Meegan (GOV)
Sent: Monday, December 28, 2015 6:23 PM
To: Agen, Jarrod (GOV); Baird, Richard (GOV)
Cc: Redford, James (GOV); Hollins, Harvey (GOV)
Subject: RE: Letter to the Governor

Hi all,

It sounds like everyone can make a conference call at 6:45 p.m. – yes, in about 20 minutes.

[redacted]

Regards,
- Meegan

From: Agen, Jarrod (GOV)
Sent: Monday, December 28, 2015 6:03 PM
To: Baird, Richard (GOV) <bairdr@michigan.gov>
Cc: Redford, James (GOV) <RedfordJ@michigan.gov>; Holland, Meegan (GOV) <HollandM2@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Subject: Re: Letter to the Governor

Yes, let's talk asap.

On Dec 28, 2015, at 6:00 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:

> I would suggest a concall with us tonight.
>
> *Sent from my Verizon Wireless 4G LTE DROID*
> ---------- Forwarded message ----------
> From: Ken Sikkema [redacted]
> Date: Dec 28, 2015 4:34 PM
> Subject: Letter to the Governor
> To: "Baird, Richard (GOV)" <bairdr@michigan.gov>
> Cc: Chris Kolb [redacted]
>
> > Rich:
> >
> > I want to give you a heads up: the Task Force will be sending a letter to the Governor tomorrow am that states the primary---not the only, but certainly the primary--responsibility for the Flint Water crisis lies at the feet of the MDEQ. We will address three failures: (1) regulatory culture in the Office of Drinking Water and Municipal Assistance; (2) inappropriate and unacceptable public response; and (3) inadequate application of the Lead and Copper Rule.
> >
> > We address the critical and urgent need to establish responsibility and hold individuals accountable as soon as possible.

It is our intent to send the letter via email tomorrow, with a public release Wednesday am...

The Task Force--both individually and collectively--feel strongly about the need for us to be on record now rather than later.

Don't hesitate to contact me if you have any questions.

Ken Sikkema

--

Ken Sikkema
Senior Policy Fellow
Public Sector Consultants
PH: [redacted]
[redacted]

From: Agen, Jarrod (GOV)
Sent: Monday, December 28, 2015 6:54 PM
To: Baird, Richard (GOV); Holland, Meegan (GOV); Hollins, Harvey (GOV); Redford, James (GOV)
Subject: letter
Attachments: Snyder Letter EPR v5-Clean.docx; ATT00001.txt

Dear Governor Snyder:

The Flint Water Advisory Task Force, which you appointed on October 21, 2015, has devoted considerable effort and countless hours to our review of the contamination of the Flint water supply: what happened, why it occurred, and what is needed to prevent a recurrence in Flint or elsewhere in the state. We have also been assessing ongoing mitigation efforts to help assure that short- and long-term public health issues and water management concerns will be properly addressed to safeguard the health and well being of the Flint community.

Shortly after we began our work, we recognized the immediate need for better coordination of the state's response to the ongoing public health issues in Flint, and for assignment of a single person to provide this coordination. We addressed these concerns in a letter to you on December 7, 2015, and you responded with immediate adoption of these recommendations. We thank you for the commitment your response demonstrates.

In our continuing efforts, we have now interviewed numerous individuals at state and local levels; reviewed many documents, articles, and emails; and deliberated repeatedly as a group. Both individually and as a group, we have visited Flint several times during the past several weeks to meet with citizens, public health officials and healthcare providers, individuals who have water management responsibilities at the city and county levels, and other public officials.

It is clear to us, particularly as we listen to the people of Flint, that it is both critical and urgent to establish responsibility for what happened in their community and to ensure accountability. This is a first step in a long process to re-establish the trust they no longer have in their government and the agencies whose responsibility it is to protect their health. It is urgent because this deep distrust of government continues to compromise the effective delivery of protective services designed to address ongoing public health issues. It is for these reasons that we are sending this letter at this time.

We believe the primary responsibility for what happened in Flint rests with the Michigan Department of Environmental Quality (MDEQ). Although many individuals and entities at state and local levels contributed to creating and prolonging the problem, MDEQ is the government agency that has responsibility to ensure safe drinking water in Michigan. It failed in that responsibility and must be held accountable for that failure.

The Safe Drinking Water Act (SDWA) places responsibility for compliance with its requirements on the public water system. In this instance, the City of Flint had the responsibility to operate its water system within SDWA requirements, under the jurisdiction of the MDEQ. The role of the MDEQ is to **ensure** compliance with the SDWA through its regulatory oversight as the primary agency having enforcement responsibility for the Flint water system.

The MDEQ failed in three fundamental ways.

<u>Regulatory Failure</u>

We believe that in the Office of Drinking Water and Municipal Assistance (ODWMA) at MDEQ, a culture exists in which "technical compliance" is considered sufficient to ensure safe drinking water in Michigan. This minimalist approach to regulatory and oversight responsibility is unacceptable and simply insufficient to the task of public protection. It led to MDEQ's failure to recognize a number of indications that switching the water source in Flint would—and did—compromise both water safety and water quality. The MDEQ made a number of decisions that were, and continue to be, justified on the basis that federal rules "allowed" those decisions to be made. ODWMA must adopt a posture that is driven not by

this minimalist technical compliance approach, but rather by one that is founded on *what needs to be done to assure drinking water safety.*

A culture change must occur within ODWMA. It must be driven by a mission that is aspirational regarding the role of the MDEQ in ensuring the safety and the quality of Michigan's drinking water. We believe, and have expressed to MDEQ Director Dan Wyant, that as a Great Lakes State, Michigan should aspire to have the safest drinking water in the nation, rather than merely aiming for technical compliance with regulatory requirements.

Failure in Substance and Tone of MDEQ Response to the Public

Throughout 2015, as the public raised concerns and as independent studies and testing were conducted and brought to the attention of MDEQ, the agency's response was often one of aggressive dismissal, belittlement, and attempts to discredit these efforts and the individuals involved. We find both the tone and substance of many MDEQ public statements to be completely unacceptable. In a real way, the MDEQ represents the public, including the very individuals it treated dismissively and disrespectfully in public statements. We recognize that the agency might disagree with the opinions of others on a variety of issues, including testing protocol, interpretation of testing results, the requirements of federal law and rules, and other matters. What is disturbing about MDEQ's responses, however, is their persistent tone of scorn and derision. In fact, the MDEQ seems to have been more determined to discredit the work of others—who ultimately proved to be right—than to pursue its own oversight responsibility.

Failure in MDEQ Interpretation of the Lead and Copper Rule

The federal Lead and Copper Rule (LCR) is central to what happened in Flint, because that rule, at least theoretically, is designed to prevent lead and copper contamination of drinking water. The federal LCR calls for "optimized corrosion control treatment," which the MDEQ did not require in the switch to the Flint River. Prior to the switch, MDEQ staff instructed City of Flint water treatment staff that corrosion control treatment (CCT) was not necessary until two six-month monitoring periods had been conducted. The need for CCT would be evaluated after the results from those two monitoring periods were reviewed. The decision not to require CCT, made at the direction of the MDEQ, led directly to the contamination of the Flint water system.

The MDEQ seems to have taken different positions on whether it faithfully followed the LCR in the Flint situation. It first maintained that it followed the LCR, then stated that it did not follow the rule properly, and most recently claimed that a federal memorandum issued by the US EPA in early November 2015 suggests that the original MDEQ interpretation was possibly correct.

We are not convinced. Even the MDEQ's latest interpretation of the US EPA's November memorandum is overly legalistic and misunderstands the intent of the LCR, which is to minimize risks of lead and copper exposure for human health.

We believe ODWMA's single-minded legalistic focus is the heart of the problem, and it is part of the "technical compliance" culture described above. ODWMA should not be basing its actions solely on a legally possible interpretation of the LCR. It should be focusing on how to protect Michigan's citizens from lead in drinking water.

We met with MDEQ Director Wyant on December 16, 2015, to discuss these issues, as well as many others. We note his substantial agreement with many of our conclusions, particularly as it relates to the regulatory failure and the abysmal public response of his agency. It is our understanding that he has drawn similar conclusions in his own evaluation of the MDEQ's role in the Flint water crisis. At the same

time, it was disappointing to hear his weak defense of the CCT decision based on the EPA's November 2015 memorandum.

We are not finished with our work. Other individuals and entities made poor decisions, contributing to and prolonging the contamination of the drinking water supply in Flint. As an example, we are particularly concerned by recent revelations of MDHHS's apparent early knowledge of, yet silence about, elevated blood lead levels detected among Flint's children. We also feel it important to further review local government decision processes under emergency management. Our final report will highlight and discuss those concerns, among many others, to provide some context to a comprehensive series of recommendations. **As stated earlier in this letter, however, we believe that establishing responsibility is a critical and urgent need, and one that should not wait for our final report in 2016. Individuals and agencies responsible must be held accountable in a timely fashion.**

It is our hope that the heightened awareness of the dangers of lead poisoning can be an opportunity to make Michigan safer, particularly for its children. Drinking water must be recognized as a potential source of health risk exposure when water lines and fixtures containing lead are disturbed or compromised. Proper testing, not only in high-risk areas but also in facilities serving children (e.g., schools), must be considered. Facilitating long-term financing of a model public health program, and also replacement of lead-containing water service lines and fixtures, would enable Michigan to realize a positive lasting legacy from the tragedy of the Flint water crisis. Our final report will address some of these issues.

The City of Flint's water customers—fellow Michigan citizens—were needlessly and tragically exposed to toxic levels of lead through their drinking water supply. They deserve a commitment to properly assess responsibility and ensure accountability. They also deserve a commitment to needed mitigation in both the short and long term. The Flint water crisis never should have happened. Having failed to prevent it, state government should coordinate a sustained, public-health-focused response to remedy, to the fullest extent possible, the impacts on the Flint community.

Respectfully yours,

Flint Water Advisory Task Force:

Ken Sikkema
Chris Kolb
Matt Davis
Larry Reynolds
Eric Rothstein

From: Holland, Meegan (GOV)
Sent: Monday, December 28, 2015 8:22 PM
To: Redford, James (GOV)
Subject: CONFIDENTIAL ATTORNEY CLIENT COMMUNICATION: Flint water

Jim – Thoughts before you send this on? - Meegan

"When I became aware that the city of Flint's water showed elevated lead levels and that many questioned the state's handling of the situation, I appointed an independent task force to shine a bright light on how the situation evolved and how any missteps occurred. The task force has done its job without interference. It so far has reviewed stacks of documents and interviewed scores of Flint, Genesee County, state and federal officials, all while keeping me apprised of its progress. Even though the task force's final report may not occur for another month, it has made me aware of some initial findings that call for immediate corrective steps in order to restore trust in how the state keeps its citizens safe and informed.

"No matter what the testing requirements were, they were not enough to prevent this crisis. It's clear we should have listened better and put safeguards in place more quickly.

Due to these conclusions, I'm accepting the resignation of MDEQ Director Dan Wyant, and three DEQ employees directly involved with some of the problems cited by the task force.

"And that's not all. I understand there can be disagreements within the scientific community. That is why I have directed both the departments of Environmental Quality and Health and Human Services to invite every external scientist who has worked on the Flint water issue to be partners in helping us improve Flint water. Let's share research on water and blood lead level testing to arrive at the most accurate conclusions. Together, we should be able to affirm that we're using the very best testing protocols to ensure Flint residents have safe drinking water and that we're doing proper monitoring and remediation of health impacts over the short and long term.

"I want the Flint community to know how very sorry I am that this has happened. And I want all Michigan citizens to know that we will learn from this experience, because Flint is not the only city that has an aging infrastructure containing lead lines.

"But I know apologies aren't enough. That's why I'm taking the actions today to create a culture of openness and empathy. We've already allocated $10 million to test the water, distribute water filters, and help in other ways. Last week, I called Flint Mayor Karen Weaver, and we're going to meet soon to discuss other ways the state can offer assistance.

"These are only initial steps - we fully expect to take more actions following the recommendations of our task force. When it comes to matters of health and quality of life, we're committed to doing everything we can to protect the well-being of our citizens."

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
[redacted]
Twitter: @meholland

From: Hollins, Harvey (GOV)
Sent: Tuesday, December 29, 2015 11:28 AM
To: Baird, Richard (GOV); Redford, James (GOV)
Cc: Agen, Jarrod (GOV); Holland, Meegan (GOV)
Subject: RE: CONFIDENTIAL ATTORNEY CLIENT COMMUNICATION - DRAFT DOCUMENT -- Flint water

Below are my edits:

"When I became aware that the city of Flint's water showed elevated lead levels and that many the state's handling of the situation was being questioned, I made the decision to request funding from the legislature to switch Flint off the Flint River back to the Great Lakes Water Authority until the completion of the new pipeline. I then appointed an independent task force to investigate how the situation evolved and identify missteps and areas for improvement.

The task force is doing an exceptional job and has been relentless in focusing on the facts. It so far has reviewed stacks of documents and interviewed scores of Flint, Genesee County, state and federal officials, and keeping me and my team apprised of its progress.

Although the task force's final report is not yet completed, it has made me aware of some interim findings and corrective steps that I have decided to take immediately in order to restore trust in how the state keeps its citizens safe and informed.

"No matter what the testing requirements were, they were not enough to prevent this situation. ~~Moving forward we will listen intently and be more responsive to community needs.~~

"After much consideration, reinforced by the strong recommendation of the task force, I am accepting the resignation of MDEQ Director Dan Wyant, and have made other personnel changes in MDEQ to address problems cited by the task force.

I understand there can be disagreements within the scientific community. That is why I have directed both the departments of Environmental Quality and Health and Human Services to invite every external scientist who has worked on the Flint water issue to be our partners in helping us improve Flint water. I believe open sourcing data on water and blood lead level testing to arrive at accurate and mutually supported conclusions is a better way. Together, we should work to affirm that we're using the very best testing protocols to ensure Flint residents have safe drinking water and that we're doing proper monitoring and remediation of health impacts over the short and long term.

"I want the Flint community to know how very sorry I am that this has happened. And I want all Michigan citizens to know that we will learn from this experience, because Flint is not the only city that has an aging infrastructure containing lead lines.

"But changes in leadership and staff, and apologies are not enough. That's why I'm taking the actions today to ensure a culture of openness and trust. We've already allocated $10 million to test the water, distribute water filters, and help in other ways. Last week, I called Flint Mayor Karen Weaver, and we're going to meet soon to discuss other ways the state can offer assistance.

"These are only initial steps - we fully expect to take more actions following the recommendations of our task force. When it comes to matters of health and quality of life, we're committed to doing everything we can to protect the well-being of our citizens."

From: Baird, Richard (GOV)
Sent: Monday, December 28, 2015 9:09 PM
To: Redford, James (GOV) <RedfordJ@michigan.gov>
Cc: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Holland, Meegan (GOV) <HollandM2@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Subject: Re: CONFIDENTIAL ATTORNEY CLIENT COMMUNICATION - DRAFT DOCUMENT -- Flint water

Some wordsmith and editing thoughts. Not my power Lane. Use as you see fit.

Rich

Please pass this on to the appropriate folks. Thanks Jim! - Meegan

"When I became aware that the city of Flint's water showed elevated lead levels and that many the state's handling of the situation was being questioned, I appointed an independent task force to investigate how the situation evolved and identify missteps and areas for improvement.

The task force has done an exceptional job and has been relentless in focusing on the facts. It so far has reviewed stacks of documents and interviewed scores of Flint, Genesee County, state and federal officials, and keeping me and my team apprised of its progress.

Although the task force's final report is not yet completed, it has made me aware of some interim findings and corrective steps that I have decided to take immediately in order to restore trust in how the state keeps its citizens safe and informed.

"No matter what the testing requirements were, they were not enough to prevent this situation. Moving forward we will listen intently and be more responsive to community needs.

"I am accepting the resignation of MDEQ Director Dan Wyant, and have made other personnel changes to address problems cited by the task force.

But, changes in leadership and staff are not enough. I understand there can be disagreements within the scientific community. That is why I have directed both the departments of Environmental Quality and Health and Human Services to invite every external scientist who has worked on the Flint water issue to be our partners in helping us improve Flint water. Let's share research on water and blood lead level testing to arrive at accurate and mutually supported conclusions. Together, we should work to affirm that we're using the very best testing protocols to ensure Flint residents have safe drinking water and that we're doing proper monitoring and remediation of health impacts over the short and long term.

"I want the Flint community to know how very sorry I am that this has happened. And I want all Michigan citizens to know that we will learn from this experience, because Flint is not the only city that has an aging infrastructure containing lead lines.

"But I know apologies aren't enough. That's why I'm taking the actions today to ensure a culture of openness and trust. We've already allocated $10 million to test the water, distribute water filters, and help in other ways. Last week, I called Flint Mayor Karen Weaver, and we're going to meet soon to discuss other ways the state can offer assistance.

"These are only initial steps - we fully expect to take more actions following the recommendations of our task force. When it comes to matters of health and quality of life, we're committed to doing everything we can to protect the well-being of our citizens."

Sent from my Verizon Wireless 4G LTE DROID
On Dec 28, 2015 8:42 PM, "Redford, James (GOV)" <RedfordJ@michigan.gov> wrote:

> New Draft.
>
> Jim
>
> Sent from my iPad
>
> Begin forwarded message:
>
> **From:** "Holland, Meegan (GOV)" <HollandM2@michigan.gov>
> **Date:** December 28, 2015 at 8:37:43 PM EST
> **To:** "Redford, James (GOV)" <RedfordJ@michigan.gov>
> **Subject: CONFIDENTIAL ATTORNEY CLIENT COMMUNICATION - Flint water**
>
> Please pass this on to the appropriate folks. Thanks Jim! - Meegan

"When I became aware that the city of Flint's water showed elevated lead levels and that many questioned the state's handling of the situation, I appointed an independent task force to shine a bright light on how the situation evolved and how any missteps may have occurred. The task force has done its job without interference. It so far has reviewed stacks of documents and interviewed scores of Flint, Genesee County, state and federal officials, all while keeping me apprised of its progress. Even though the task force's final report may not occur for another month, it has made me aware of some initial findings that call for immediate corrective steps in order to restore trust in how the state keeps its citizens safe and informed.

"No matter what the testing requirements were, they were not enough to prevent this situation. Moving forward we will listen better and be more responsive to community needs.

"Due to these observations, I'm accepting the resignation of MDEQ Director Dan Wyant, and three DEQ employees directly involved with some of the problems cited by the task force.

"And that's not all. I understand there can be disagreements within the scientific community. That is why I have directed both the departments of Environmental Quality and Health and Human Services to invite every external scientist who has worked on the Flint water issue to be partners in helping us improve Flint water. Let's share research on water and blood lead level testing to arrive at the most accurate conclusions. Together, we should be able to affirm that we're using the very best testing protocols to ensure Flint residents have safe drinking water and that we're doing proper monitoring and remediation of health impacts over the short and long term.

"I want the Flint community to know how very sorry I am that this has happened. And I want all Michigan citizens to know that we will learn from this experience, because Flint is not the only city that has an aging infrastructure containing lead lines.

"But I know apologies aren't enough. That's why I'm taking the actions today to create a culture of openness and empathy. We've already allocated $10 million to test the water, distribute water filters, and help in other ways. Last week, I called Flint Mayor Karen Weaver, and we're going to meet soon to discuss other ways the state can offer assistance.

"These are only initial steps - we fully expect to take more actions following the recommendations of our task force. When it comes to matters of health and quality of life, we're committed to doing everything we can to protect the well-being of our citizens."

Meegan Holland

Director of Communications for Gov. Rick Snyder

Office: 517-335-6397

Mobile: [redacted]

Twitter: @meholland

Meegan Holland

Director of Communications for Gov. Rick Snyder

Office: 517-335-6397

Mobile: [redacted]

Twitter: @meholland

From: Holland, Meegan (GOV)
Sent: Tuesday, December 29, 2015 1:59 PM
To: Redford, James (GOV)
Subject: RE: Here's what's going to executive staff

It's going out to our executive staff to our executive staff at 2:30, when the release goes out. Up to you whether you trust the situation enough to send it earlier than that.

- Meegan

From: Redford, James (GOV)
Sent: Tuesday, December 29, 2015 1:54 PM
To: Holland, Meegan (GOV) <HollandM2@michigan.gov>
Subject: Re: Here's what's going to executive staff

Ok. Let me know
When I can send.

Thx ?

J

Sent from my iPhone

On Dec 29, 2015, at 1:48 PM, Holland, Meegan (GOV) <HollandM2@michigan.gov> wrote:

> This would be the better version to share with your AG counterpart – it's Jarrod's note to executive staff that will go out soon. - Meegan
>
> Team,
>
> As you are aware, we have been working closely with the independent task force that has been reviewing state, local and federal actions regarding the serious health issues related to water in Flint.
>
> Although the task force's final report is not yet complete, members have made the Governor aware of some interim findings, and there are interim steps the Governor has decided to take immediately in order to restore trust in how we in state government keep residents safe and informed.
>
> As part of this process, Dan Wyant, director of the Department of Environmental Quality, has offered his resignation, and Governor has reluctantly determined to accept it. There are likely to be other personnel changes in MDEQ as well.
>
> I want to thank Dan for his service. He has been the DEQ director since the start of the administration, and previously headed the Agriculture Department under both Gov. Engler and Gov. Granholm. He is passionate about public service and protecting our state's environment.

The situation in Flint is serious and challenging. We will continue work closely with the task force and city leaders as we move forward, committed to protecting the health of people living in Flint and around our state.

Sincerely,

Jarrod Agen

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
Mobile: [redacted]
Twitter: @meholland

From: Michael H. Dettmer [redacted]
Sent: Wednesday, December 30, 2015 8:49 AM
To: Redford, James (GOV)
Subject: MDEQ - Flint water
Attachments: EPA Beyond the Horizon1995.pdf

Jim: First, Happy New Year. Hopefully you and the Governor and administration have a successful 2016. I think he made the right move yesterday to recognize and acknowledge the seriousness of what may have been to DEQ staff, just another decision to allow cost savings in the face of health and now serious economic consequences. Though in different parties, I have and I think those of us at FLOW have looked at the Governor as another potential Bill Milliken in terms of his environmental conscience and desire for a pro-environment legacy. I am old enough to recall how Governor Milliken reacted to the PBB Farm Bureau disaster in 1973 when the chemical was accidentally mislabeled and sold to feed cattle. I suggest then Governor Milliken was candid in acknowledging that his administration's reaction was too little too late but he in fact then acted in terms of restoring confidence by redoubling his efforts to place Michigan's environment in the forefront of state issues , including re-education of the state's business community. I would hope Governor Snyder would do the same and I think yesterday was a start. Please extend FLOW's congratulations and support. I also attach a 1995 EPA report by its Science Advisory Board. I suggest though the report is 20 years old, its recommendations on drinking water found at page 31 remain fully viable and something the administration might look at, update and implement. Still hope to see you and catch up one of these days. Cordially, Mike

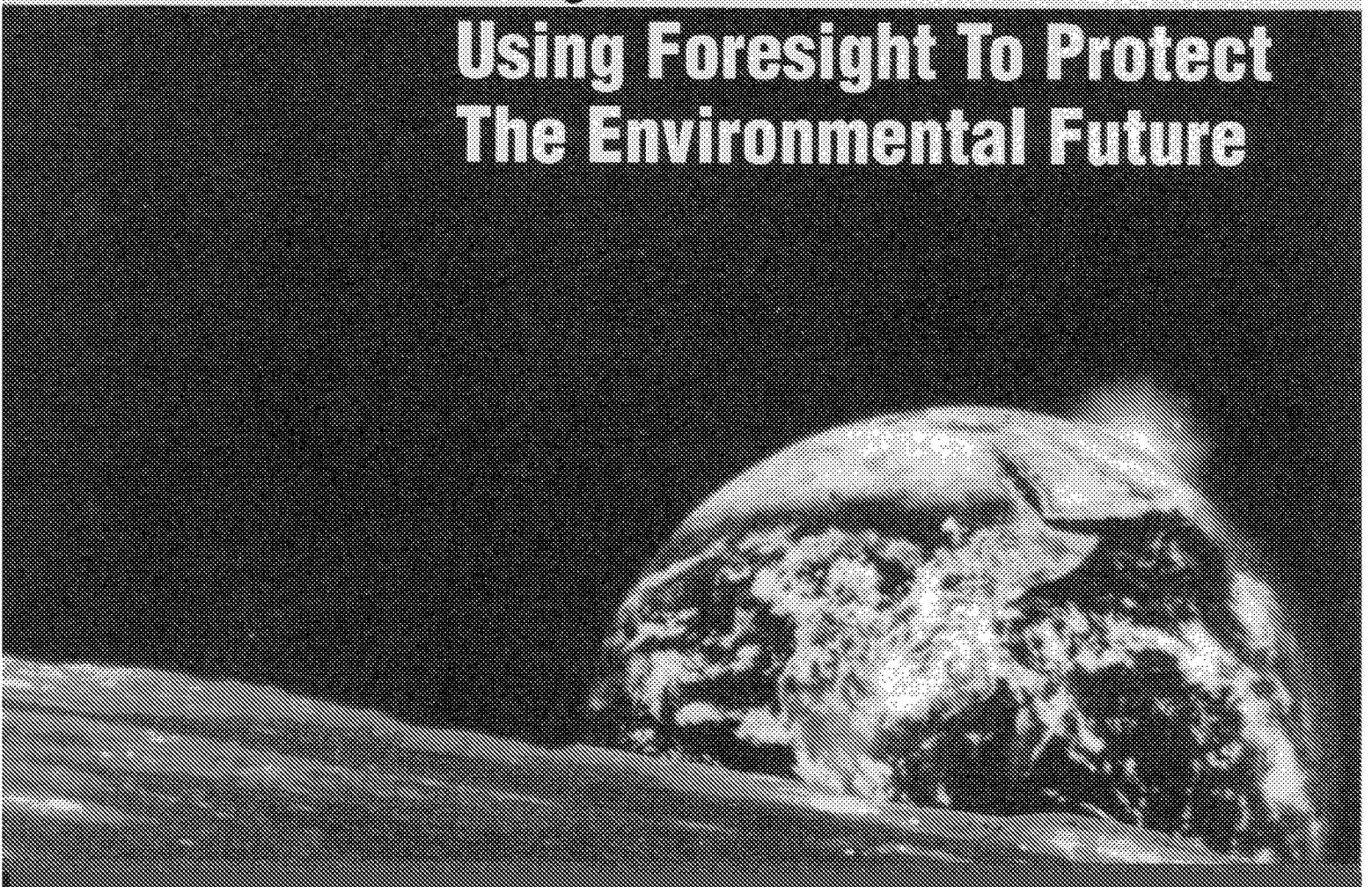
United States
Environmental Protection
Agency

Science Advisory
Board

January 1995
EPA-SAB-EC-95-007

EPA Beyond The Horizon:

Using Foresight To Protect The Environmental Future



U.S. Environmental Protection Agency
Science Advisory Board
Environmental Futures Committee
January 1995

"If we could first know where we are and whither we are tending, we could better judge what to do, and how to do it."

-Abraham Lincoln

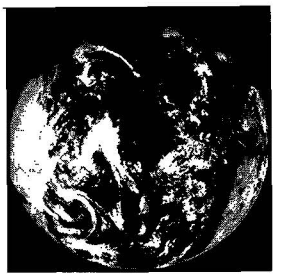
The Science Advisory Board (SAB) is a Congressionally-mandated, independent group of scientists, engineers, and other professionals who provide technical advice and information to the Administrator and other officials of the Environmental Protection Agency (EPA). The value of SAB's advice is a function of its independence from the Agency and the highly-qualified, balanced expertise it can apply to technical questions.

In most cases, the SAB assesses scientific or engineering issues related to environmental problems of immediate concern to EPA. On occasion, however, past EPA Administrators and the Congress have requested the SAB's formal opinion on matters related to EPA's future operations, research needs, management priorities, and budgets. In such cases, the SAB has provided advice with an explicitly future-oriented policy dimension.

For example, in September 1988 the SAB issued Future Risk: Research Strategies for the 1990s, which recommended ways to strengthen EPA's research capabilities and increase the emphasis on long-term research. In September 1990 the SAB released Reducing Risk: Setting Priorities and Strategies for Environmental Protection, which recommended that the Agency use relative risk to shape a more integrated, prioritized approach to environmental protection.

This report, Beyond the Horizon: Using Foresight to Protect the Environmental Future, also contains SAB findings and recommendations that have broad, future-oriented policy implications. The contents of this report reflect the findings and recommendations of the SAB, and they are not necessarily the views of EPA or any other Federal agency.

Cover photograph courtesy of the National Aeronautics and Space Administration (NASA)



Beyond The Horizon: Using Foresight To Protect The Environmental Future

U.S. Environmental Protection Agency

Science Advisory Board

Environmental Futures Committee

January 1995

Printed on Recyc/ed Paper

Letter to the Administrator

January 15, 1995

Science Advisory Board
U.S. Environmental Protection Agency
Washington, DC 20460

Ms. Carol Browner
Administrator
U.S. Environmental Protection Agency
Washington, DC 20460

Dear Ms. Browner:

The Science Advisory Board is pleased to present to you our most recent report, *Beyond the Horizon: Using Foresight to Protect Our Environmental Future.* Prepared by the Environmental Futures Committee with the assistance of several SAB standing committees, this report responds to a request from you and Assistant Administrator David Gardiner to advise the Agency on ways to prepare for environmental problems that may emerge in the 21st century.

In the past, EPA's response to environmental problems has been driven by environmental deterioration, widespread public concern, Federal law, or a combination of the three. In virtually all cases, EPA has acted to reduce environmental threats that were immediate or near-term.

The SAB believes, however, that there is value for EPA, and for a prudent nation, in anticipating problems that may emerge in the future, and, if necessary, taking action in the present to reduce them or to avoid them entirely. The benefits of foresight are economic (as the costs of solving problems are reduced), environmental (as environmental losses are avoided), and social (as environmental debts are not passed on to future generations). For these reasons, the SAB in this report recommends that EPA, working with other appropriate organizations both inside and outside the government, develop a "futures" capability, a capability to anticipate future environmental conditions and analyze the actions needed to improve them.

The members of the Environmental Futures Committee recognize that EPA often is criticized for overreacting to immediate environmental problems, and for imposing costs out of proportion to the environmental risks involved. Such criticisms are likely to be directed at any Agency effort to anticipate possible future problems, or propose actions to address them before they emerge.

Nevertheless, such a futures capability IS desirable. In this report the SAB is not predicting that particular environmental problems will emerge in the future, nor are we suggesting the kinds or extent of the actions that EPA should take in the near term to avoid them. Rather, we strongly suggest that EPA should include, among its repertoire of technical and analytical skills, a capability to routinely and systematically study the range of possible environmental futures ahead, and advise the nation on possible actions in response.

All Americans-those of us alive today, and those of us to come-would be well served by this attentiveness to the future.

Sincerely, Dr. Raymond Loehr
Chair, Environmental Futures Committee

Dr. Genevieve Matanoski
Chair, Science Advisory Board

Contents

Executive Summary

1. Why Think About the Future? 1
2. The Environmental Futures Committee 3
3. A System of Inquiry 3
4. Beyond the Horizon 5
5. The Recommendations 5

Findings on Environmental Futures

1. The Forces of Change 7
2. Current Uses of Foresight 9
3. Foresight Methodologies 11
4. The Value-and Uncertainty-of Foresight.. 12
5. Possible Emerging Problem Areas.. 13
6. The Environment: A Strategic National Interest 17
7. Thinking of Futures at EPA 18

Recommendations On Environmental Futures

Recommendation 1 21
Recommendation 2 22
Recommendation 3 22
Recommendation 4 25
Recommendation 5 29

Science Advisory Board
Environmental Futures Committee

Chair

Dr. Raymond Loehr
H. M. Alharthy Centennial Chair and Professor
Environmental and Water Resources Program
The University of Texas at Austin
Austin, TX

Members[1]

Mr. Alvin Alm
Sector Vice President
Science Applications International Corporation
McLean, VA

Mr. Richard Conway
Senior Corporate Fellow
Union Carbide Corporation
South Charleston, WV
(Liaison to the Environmental Engineering Committee)

Dr. Paul Deisler
(Retired)
Austin, TX

Dr. Kenneth Dickson
Director, Institute of Applied Science
University of North Texas
Denton, TX
(Liaison to the Ecological Processes and Effects Committee)

Mr. Theodore J. Gordon
(Retired)
Vero Beach, FL

Mr. Fred Hansen[2]
Director, Oregon Department of Environmental Quality
Portland, OR

Dr. Morton Lippmann
Institute for Environmental Medicine
New York University
Tuxedo, NY
(Liaison to the Indoor Air Quality and Total Human Exposure Committee)

Dr. Genevieve M. Matanoski
Department of Epidemiology
School of Public Health
The Johns Hopkins University
Baltimore, MD
(Executive Committee Chair and Liaison to the Radiation Advisory Committee)

Dr. Paulette Middleton
Science & Policy Associates, Inc.
Boulder, CO
(Liaison to the Clean Air Scientific Advisory Committee)

Dr. Verne Ray
Medical Research Laboratory
Pfizer Inc.
Groton, CT
(Liaison to the Drinking Water Committee)

Dr. Terry Yosie
Vice President
E. Bruce Harrison Company
Washington, DC

Designated Federal Officals

Dr. Edward S. Bender

Mr. A. Robert Flaak

Staff Secretaries

Ms. Diana L. Pozun

Ms. Lori Anne Gross

---

[2] The Committee also was assisted by Ms. Linda Greer, Natural Resources Defense Council (Washington, DC).

[3] Mr. Hansen served on the Environmental Futures Committee from December 1993 until September 1994, when he resigned to become the Deputy Admimstrator of EPA.

1. Why Think About the Future?

For the past quarter century, the basic approach to environmental protection in this country has been, for the most part, reactive. Institutions have been established, laws passed, and regulations written in response to problems that already were posing substantial ecological and public health risks and costs, or that already were causing deep-seated public concern.

Since its inception, the Environmental Protection Agency (EPA)-like the nation-has focused its environmental attention almost exclusively on the present and the past. The political will to establish the Agency grew out of a series of highly-publicized, well-advanced environmental problems, like the fire on the Cuyahoga River, smog in Los Angeles, and the near-extinction of the bald eagle. During the 1970s and 1980s, the U.S. Congress enacted a series of laws intended to solve serious existing environmental problems, and EPA was given the responsibility to administer most of them. The Superfund program, by definition, was intended to clean up the environmental mistakes of the past. Even those EPA activities like pollution prevention programs and new source performance standards, that are intended explicitly to avoid future problems, are given impetus by problems that already exist.

Despite the nation's demonstrable success in ameliorating a number of existing environmental problems, an almost exclusive reliance on after-the-fact response (i.e., not responding to environmental problems until they pose immediate and unambiguous risks) will not protect the environment adequately in the future. It is essential for EPA-and for other agencies and organizations whose activities affect the environment-to begin to *anticipate* future environmental problems, and then take steps to avoid them, not **just** respond to them after the fact. Indeed, one of the most important lessons taught by this country's environmental history is that the failure to think about the future environmental consequences of prospective social, economic, and technological changes (i.e., the failure to engage in environmental foresight) may impose substantial-and avoidable-economic and environmental costs on future generations.

Thinking about the future is more important today than ever before, because ever-faster change is shrinking the distance between the present and the future. Technological capabilities-in computers, for example-that seemed beyond the horizon just a few years ago are now out-dated. Scientific understanding and the flow of information are accelerating. Similarly, the environmental effects of global economic activity are being felt more rapidly by both nations and individuals.

As a result, traditional responses to environmental problems, i.e., the actions taken by government or the private sector to solve problems after they emerge, will not be effective enough, or take effect quickly enough, to protect vital economic and environmental resources. If, for example, natural habitats such as temperate forests deteriorated quickly and extensively, it probably would be too late to save many indigenous species by the time population declines were noticed. In short, the increased pace of economic and technological change dictates an increased emphasis on foresight to protect the environment over the long term.

Thinking about the future is valuable because, by initiating thought and analysis well in advance of anticipated

"When one generation's behavior necessitates environmental remediation in the future, a burden of environmental debt is bequeathed to its children just as surely as unbalanced government budgets bequeath a burden of future financial debt."

change, it can shorten the time needed and improve the quality of the response to such change, were it to occur, and reduce-or avoid entirely-the losses that result when pollution problems persist over time. Because such losses may be irreversible, response time may well be a critical measure of society's ability to protect environmental quality in the future.

The bald eagle has soared back from the edge of extinction, but the loss of that species very nearly became irreversible because of inattention to the possible side effects of some pesticides. Even when losses are potentially reversible, like the respiratory effects that result from short-term human exposure to ground-level ozone, high costs may be imposed on human health or the economy before ozone exposures are reduced.

Thinking about the future also is valuable because the cost of avoiding a problem is often far less than the cost of solving it later. The national experience with hazardous waste disposal provides a compelling example. Some private companies and Federal facilities undoubtedly saved money in the short term by disposing of hazardous wastes inadequately, but those savings were dwarfed by the cost of cleaning up hazardous waste sites years later. In that case, foresight could have saved private industry, insurance companies, and the Federal government (i.e., taxpayers) billions of dollars, while reducing the pollutant exposures-and resulting anxieties-in neighboring communities.

Besides reducing both the response time and the cost of protective actions, thinking about the future also can help preserve a wider variety of response options. For example, there are several ways to limit the potential future effects of solid waste disposal on groundwater, e.g., improving disposal facilities, separating wastes before disposal, preventing waste generation, and recycling. There are fewer-and more expensive-alternatives for cleaning up groundwater after contamination. Environmental foresight preserves flexibility for the future.

Thinking about the future has another value, one that goes beyond the immediate costs and benefits of environmental protection. Actions driven by environmental foresight can help strengthen intergenerational equity by preserving the environmental inheritance of future generations. When one generation's behavior necessitates environmental remediation in the future, a burden of environmental debt is bequeathed to its children just as surely as unbalanced government budgets bequeath a burden of future financial debt. By anticipating the emergence of environmental problems, and by taking steps now to prevent them, the present generation can minimize the environmental and financial debts that future generations will incur.

Finally, thinking about the future is valuable because it allows people to shape the world in which they live. The future undoubtedly will be different from the present; change is inexorable.

But humanity is not powerless in the face of change. The kinds of change that will occur, and their effects on the environment, are not inevitable and immutable. The future can be changed-and improved-through commitment and action in the present.

In summary, environmental foresight can help identify potential issues and options for action that, if taken today, would help protect the environment from the adverse effects of future change. By thinking of the future, by engaging in environmental foresight, the American people can better understand the full range of risks and opportunities-environmental and economic-possible in the future, and then better define the actions needed today to reduce the risks and preserve the opportunities.

2. The Environmental Futures Committee

In July 1993, EPA Administrator Carol Browner and David Gardiner, the EPA Assistant Administrator for the Office of Policy, Planning, and Evaluation (OPPE), asked the Science Advisory Board (SAB) to investigate environmental futures. They solicited the SAB's advice on the value of anticipating environmental problems that might emerge in the future, the tools that might be used to anticipate them, and examples of possible emerging ecological and human health problems. In other words, EPA asked the SAB to apply its scientific expertise, look beyond the horizon, and then advise the Agency on the use of foresight as a tool for protecting the environment for future generations.

In response to EPA's request, the SAB formed the Environmental Futures Committee (EFC) to undertake a study of environmental foresight. (The members of the EFC are listed at the front of this report.) The EFC's major objectives were to:

- Assess different methodologies currently being used to study possible futures and anticipate likely future events;
- Identify some environmental issues that could emerge over the long term (through the year 2025); and
- Advise EPA on ways to incorporate futures research into the Agency's activities.

This report, *Beyond the Horizon: Using Foresight to Protect the Environmental Future,* summarizes the results of the EFC's study.

To support its investigation into environmental futures, the EFC held more than a dozen public meetings and six fact-finding sessions with various organizations inside and outside the Federal government. The individuals and organizations that provided information for this report are listed in Appendix I of the technical annex.

In addition, five of the SAB's standing committees prepared full reports that include conclusions and recommendations related to possible future environmental issues in their areas of special expertise. These reports, which contain more detailed information than this summary report, are available to the public. Information on how to obtain them, together with a short description of each standing committee's conclusions and recommendations, can be found at the back of this report.

3. A System of Inquiry

To meet the objectives of this study, the EFC first outlined a formal system of inquiry capable of anticipating possible environmental issues that could emerge over the next five to 30 years. Then it tested that system in order to define specific issues that could emerge. Thus, the EFC not only delineated the various methodologies currently available to futures research, but it tested one of them. Both elements-the generic analysis and the specific application-contributed to the conclusions and recommendations in this report.

"...looking beyond the horizon is essential to the nation's future success in protecting the environment."

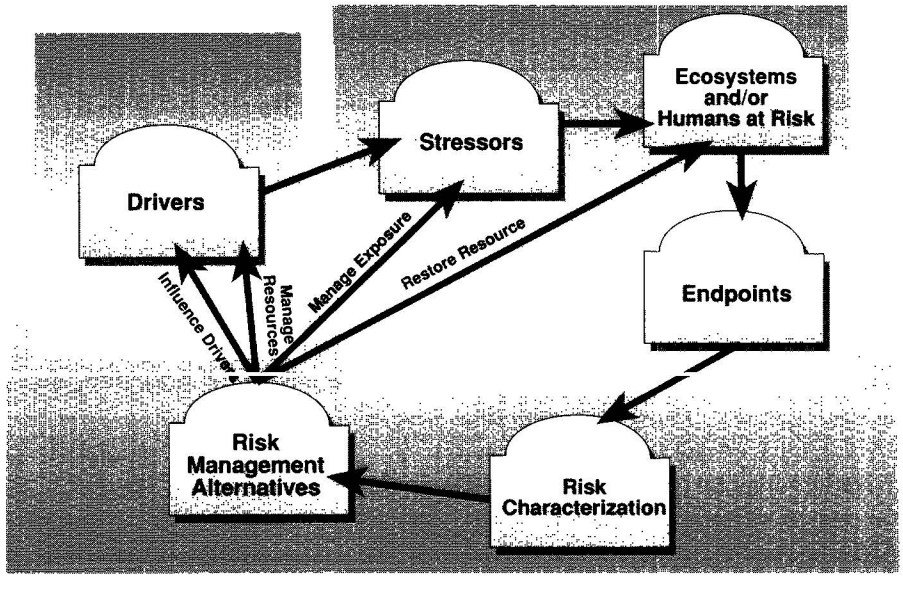
From the outset, the EFC recognized that it was not possible to anticipate future environmental problems without attempting to identify the large social, economic, and technological forces that were likely to drive future changes in environmental conditions. Such drivers (e.g., population growth, economic expansion) can generate environmental stressors (e.g., habitat alteration, global climate change) that cause adverse effects on specific human health and ecological endpoints (loss of particular species, lung cancer in humans). Figure 1 presents a conceptual model of the relationship between drivers, stressors, and endpoints.

Because understanding the drivers of change is critical to understanding change itself, the EFC attempted to identify possible drivers of environmental change in the future. Although there are many such drivers, the EFC identified four as especially important: population growth and urbanization, economic expansion and resource consumption, technological development, and environmental attitudes and institutions. These drivers are discussed in more detail in Section 4 of the technical annex to this report.

The EFC also reviewed methodologies currently available for anticipating environmental issues that could emerge in the future. A detailed summary of these methodologies is presented in Section 3 of the technical annex.

Finally, by applying one of the foresight methodologies, the EFC compiled an initial list of possible future environmental issues. A more detailed discussion of these issues is contained in Section 5 of the technical annex.

Figure 1. Conceptual Model of Drivers, Stressors, and Endpoints



4. Beyond the Horizon

The process of assessing and applying the formal system of inquiry called futures research led the EFC to the major conclusions of this report: **EPA, and other agencies and organizations whose activities affect the environment, should give as much attention to avoiding future environmental problems as to controlling current ones. In particular, EPA should establish a strong environmental futures capability that serves as an early-warning system for emerging environmental problems.**

Because EPA is responsible for protecting the environment now and over the long term, the Agency has an obligation to search for the "weak signals" that portend future risk to human health and to ecosystems, and that provide early clues about how to ameliorate or avoid those problems entirely. EPA's futures research should be global in scope, eclectic in its use of information sources, and quantitative whenever possible. It should be continuous, interactive with other organizations, and subject to scrutiny from outside the Agency. It should be linked to the futures research of other agencies and organizations, and its results should be shared openly with the public.

EPA's traditional methods of identifying-and solving-environmental problems will not be adequate to protect against problems that may emerge several years-or decades-from now. They were not designed to determine the costs of future environmental problems or the benefits of actions taken today to avoid them, both of which are difficult to estimate accurately. Futures research has to be extraordinarily tolerant of omissions, uncertainties, inaccuracies, and errors, because any view beyond the horizon is inevitably dim.

Yet looking beyond the horizon is essential to the nation's future success in protecting the environment. Protecting the future with foresight is a critical part of EPA's responsibility, and it is a forward-looking extension of the pollution prevention concept.

EPA alone is not responsible for looking beyond the horizon in order to protect future environmental quality. Many other organizations, both inside and outside of government, have substantial roles to play. Thus, this summary report contains detailed recommendations intended to help EPA, other Federal agencies, the private sector, and the nation clarify their view of, and better protect, the environment of the future.

5. The Recommendations

As society plans for the future, it is legitimate and appropriate for EPA to take responsibility for anticipating and attempting to mitigate future environmental problems, particularly those that may be only "dots on the horizon" now, but whose potential effects in the future may be large. An anticipatory role is especially appropriate, given the fact that some future environmental problems will be different, and possibly more far-reaching, than environmental problems in the past.

EPA cannot undertake this effort by itself. The involvement of many other agencies and organizations, as well as the private sector and the general public-all of whose activities affect environmental quality-is essential to the success of this forward-looking, evaluative, and ultimately pollution-preventing effort.

This report does not predict or even suggest that environmental calamities are inevitable in the future. Rather, through the investigation of future possibilities, this report emphasizes the value of anticipating, understanding, and-if necessary-responding to environmental problems before they emerge in the future, rather than continuing to play "catch-up" with problems **after** they emerge. The following recommendations are intended to strengthen the nation's ability to protect the future using the tools of foresight.

Summary of Recommendations

1. As much attention should be given to avoiding future environmental problems as to controlling current ones.

   EPA should incorporate futures research and analysis into all of its programs and activities, particularly strategic planning and budgeting, and then be prepared to act-in conjunction with other public and private-sector organizations-on the basis of that information.

2. As an essential part of its futures capabilities, EPA should establish an early-warning system to identify potential future environmental risks.

   Working with other agencies and organizations as appropriate, EPA should establish a look-out panel-made up of individuals from inside and outside government-to provide the Agency, and the nation, with an early warning of environmental issues that may emerge in the future.

3. In a longer-term, more comprehensive effort, EPA should evaluate five overarching problem areas related to a number of potential future environmental issues.

   As EPA strengthens its futures capabilities, it should pay particular-and ongoing-attention to five major problem areas:

   - Sustainability of terrestrial ecosystems;
   - Non-cancer human health effects;
   - Total air pollutant loadings;
   - Non-traditional environmental stressors; and
   - Health of the oceans.

4. EPA should stimulate coordinated national efforts to anticipate and respond to environmental change.

   Because an integrated, national effort is essential to environmental protection, EPA should spur cooperative activities among Federal agencies, different levels of government, and the private sector in four key areas:

   - Improving and integrating environment-related futures studies;
   - Focusing attention on the broad causes of environmental change, not just the end results;
   - Improving environmental awareness and education; and
   - Establishing a broad-based data system for anticipating future environmental risks.

5. EPA, as well as other agencies and organizations, should recognize that global environmental quality is a matter of strategic national interest.

   Recognizing that the United States is part of a global ecosystem that is affected by the actions of all countries, EPA should begin working with relevant agencies and organizations to develop strategic national policies that link national security, foreign relatrons, environmental quality, and economic growth.

Findings on Environmental Futures

1. The Forces of Change

Large social, economic, technological, and institutional forces will cause future environmental risks that are potentially greater than those currently recognized and managed.

Any attempt to anticipate future change must begin with the forces that drive such change. These forces-so-called "drivers''-suggest how change will manifest itself in the future, and how the environmental effects of such change can be altered by action in the present.

Environmental foresight requires an understanding of the large social, economic, technological, and institutional forces that contain the seeds of future environmental problems. Although many forces-seen and unforeseen-no doubt will affect future environmental quality, four of the most likely-and important-are: 1) the increase and rapid urbanization of global populations; 2) economic expansion and related energy use and natural resource consumption; 3) technological advances; and 4) the environmental attitudes and institutions that reflect and condition the responses of people everywhere to environmental change.

These drivers are interdependent, and the changes they drive could have both positive and negative effects on the environment. Population growth and higher per capita income, for example, most likely will drive increased demands for energy, natural resources, and manufactured goods. At the same time, higher per capita income, combined with improved education and an expanded range of personal choices, could reduce population pressures, while cleaner fuels and higher end-use efficiencies could reduce the local and global environmental effects of increased energy use. Technological changes could either exacerbate or ameliorate environmental pressures.

Clearly, the drivers of future change are not static, passive forces. They are the consequences of personal, community, and national choices. Thus the drivers of change are themselves subject to change, and, viewed separately, they suggest the range, significance, and complexity of the forces that will affect environmental quality in the future.

Population Growth and Urbanization

The continuing growth in human population, and the concentration of growing populations in large urban areas, will pose enormous environmental challenges in the future. The United Nations projects that the global population will increase from 5.6 billion currently to between 7.9 and 12 billion by the year 2050. (See Figure 2.) Urban areas will grow even faster, thus increasing the number of megacities with populations numbering from 10 to 20 million or more. As populations become more concentrated, environmental problems will intensify. Providing safe drinking water, wastewater and solid waste disposal systems, as well as environmentally-sustainable transportation systems will pose a daunting challenge in urban areas worldwide, including in some parts of the United States. Failure to provide for those needs will contribute to new or exacerbated environmental problems that could have regional or international social, economic, and political ramifications.

Economic Expansion and Resource Consumption

Over the next 20 years, per capita income in many developing countries is likely to increase. Currently, Latin

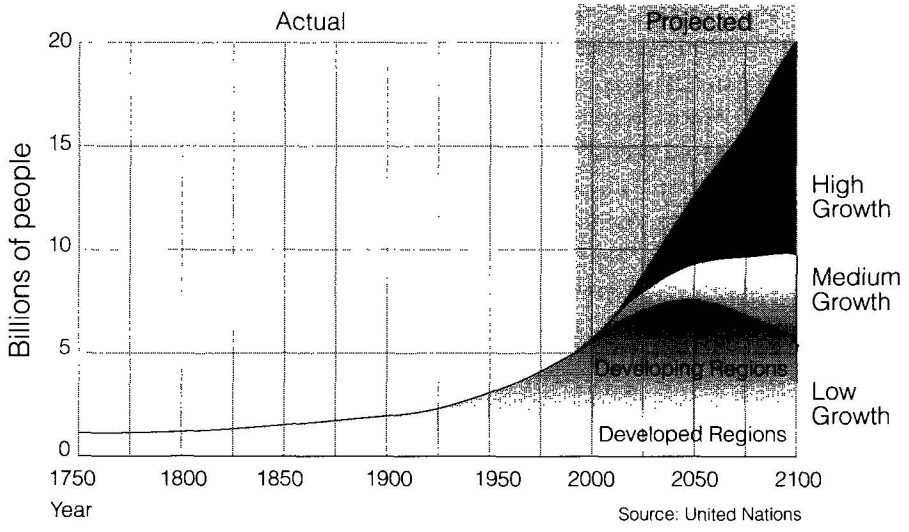
America and the Asian Pacific Rim economies are experiencing rapid economic growth, and substantial growth also is likely in other Asian nations and Central and Eastern Europe. This development, coupled with population growth, will result in greater consumption of energy, natural resources, and consumer goods.

Although recent U.S. and Western European experience indicates that energy use does not necessarily grow in direct proportion to economic growth, there is little doubt that energy use will rise dramatically in the developing world over the next 20 to 30 years. According to Department of Energy projections, energy demand in developing nations is likely to reach 240 quadrillion BTUs (quads) by the year 2010, an increase of over 40 percent in 20 years. During the same period, U.S. energy demand is projected to reach 105 quads, a 26 percent increase. By 2010, developing nations could account for more than half of the world's total energy demand. This level of growth is likely, even if per capita energy consumption in developing countries remains at much lower levels than in the industrialized world.

The fuels used to provide energy could have a profound impact on the environment. If countries such as China and India choose to generate electricity with conventional coal technologies and minimum pollution controls, the local, regional, and global environmental impacts could be substantial. On the other hand, alternative fuels and higher energy efficiency could help reduce those effects.

The potentially devastating effects of population growth, economic expansion, and individual behavior on natural resources already are evident in many parts of the world. All major ocean fishing areas presently are being fished at or beyond capacity, according to the United Nations, and global per capita seafood supplies have declined by nine percent within the past five years. (See Figure 3.) Approximately 5 - 10 percent of the world's living reefs-the rainforests of the oceans-have died because of economic activity along coastlines and in coastal waters. Continuation of trends like these, especially in light of expected population growth, would have adverse environmental and economic consequences for people everywhere.

Figure 2. Population Growth, 1750-2100



Technological Development

Throughout history, technological change has been one of the most important factors driving economic and environmental change. Technology is likely to play an even greater role in the future, as technological development proceeds at a faster pace and has a more pervasive impact on societies and individuals.

In the past, the adverse environmental effects of growing populations and expanding economies have been ameliorated by the development of new technologies-centralized wastewater treatment systems, for example. Technological advances in the future (e.g., cleaner fuels, more energy-efficient transportation and power distribution systems, less wasteful manufacturing processes) are likely to yield similar environmental benefits.

At the same time, new products (e.g., alternative transportation fuels) and materials (e.g., in photovoltaic cells or next-generation batteries) may result in new exposures and pose potential new risks to human health and ecosystems. In this sense, the future will be much like the past: technological change will bring with it both environmental improvements and environmental problems.

One of the central challenges facing society today is anticipating the likely environmental effects of future technological development, and including a concern for environmental quality in the design of future technologies and products. New technologies-in transportation, communications, health care, and manufacturing-undoubtedly will change the world of the future; many of those changes will have environmental benefits. But neither society nor industry can afford to wait until then to begin addressing the environmental problems those technologies may bring with them.

Environmental Attitudes and Institutions

In the long run, environmental quality is not determined solely by the actions of governments, regulated industries, or non-government organizations. It is largely a function of the decisions and behavior of individuals, families, businesses, and communities everywhere. Consequently, the extent of environmental awareness and the strength of environmental institutions will be two critical factors driving changes in environmental quality in the future.

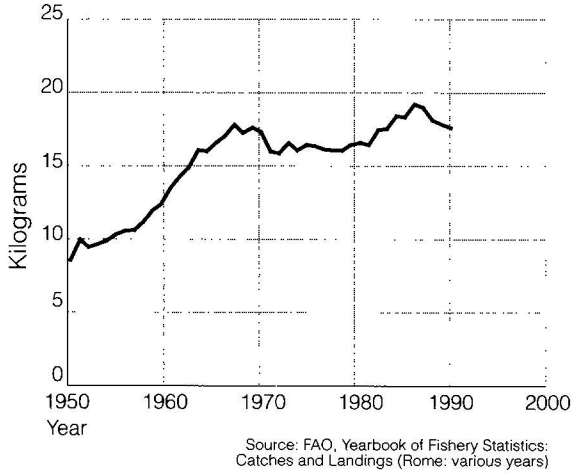
A concerned, educated public, acting through responsive local, national, and international institutions, will serve as effective agents for avoiding future environmental problems, no matter what they are. Environmental institutions, strengthened by informed public support, will play a critical role in devising and implementing effective national and international responses to emerging issues.

There are several promising ways to shape environmental attitudes and institutions, and thus help protect the environmental future. These include empowering women worldwide to reduce population growth, educating consumers on the benefits of purchasing environmentally-preferable products, and strengthening the ability of non-government organizations to provide technical assistance, training, and other services to support public health and ecosystem protection in developed and developing nations.

2. Current Uses of Foresight

Foresight-or futures research and analysis-already is being used by government, private business, and non-government organizations to anticipate future change.

Figure 3. World Fish Catch Per Person, 1950-92



Source: FAO, Yearbook of Fishery Statistics: Catches and Landings (Rome: various years)

Some government agencies, private businesses, and non-government organizations already use foresight-or futures research and analysis, as it is sometimes called-in planning, goal-setting, and policy-shaping. Although different organizations use foresight for different purposes, in all cases the participation of management in the foresight process has been essential to its success.

While most futures studies focus on the nearer term (less than five years), some reach considerably further into the future. For example, within the Federal government, several agencies use quantitative forecasting techniques that employ statistical models to project long-term future conditions. The Energy Information Administration within the Department of Energy develops detailed energy use projections as far as 20 years into the future. With a shorter-term focus, the Internal Revenue Service, the Department of Defense, and the intelligence community employ scanning systems and trend analysis as part of institutional planning. The Department of Defense uses "gaming" exercises to anticipate the possible circumstances of future warfare and prepare a range of options in response.

Over the past several years, many regional, state, and local governments have applied the tools of foresight to assess issues associated with demographics, economic development, global climate change, education, criminal justice, and agriculture. To date, 30 states have established State Futures Commissions to help set long-term goals, strategies, and action agendas for the states.

A number of foresight activities have been supported by the governments of other countries and by international organizations (e.g., the Organization for Economic Cooperation and Development, the World Bank). The Dutch government, in particular, has been a leading advocate for national-level foresight and long-range planning. Five Dutch ministries currently are sponsoring a research program to identify new technologies or technical systems that will support economic growth and environmental quality 50 years in the future.

In the private sector, foresight generally is used in relatively short-term business planning in several ways: to anticipate changing circumstances that can affect markets or competitive forces; to forecast the size of current and potential markets under varying assumptions about price and competition; to select a set of corporate financial and other goals; and to elicit and test corporate strategy and potential actions. The techniques used in the private sector include demographic and geographic analyses, statistical consumer polling, formalized environmental scanning, scenario construction, expert panels, and econometrics and other forms of computer modeling.

Examples of corporations that use such techniques can be found in essentially all industries, including communications, electronics, transportation, finance, energy, publishing, insurance, agriculture, manufacturing, pharmaceuticals, health care, and biotechnology. Underlying these corporate activities is the central assumption that opportunities can be discovered and problems avoided by thinking about what lies ahead.

EPA has relatively little institutional experience with futures research. A small Futures Office has been established to identify and test environmental foresight tools, and futures research is beginning to shape policy decisions in some program offices. For example, EPA has been working with other government agencies to anticipate and respond to the possibility of global climate change, since measurements of carbon dioxide buildup in the atmosphere have provided an early warning of possible global warming. In order to avoid potential environmental problems in the future, the Agency has begun working with other Federal and state agencies to encourage energy conservation and thus reduce or limit carbon dioxide emissions. (See Figure 4.)

3. Foresight Methodologies

Futures research and analysis can be systematically organized as an early-warning system to identify-and then help prevent-future environmental problems.

In general, there are three basic techniques widely used to identify possible future conditions. One is a top-down approach; it involves the use of "scenarios" that postulate certain circumstances about the future and then draw some likely implications from those circumstances. The second is a bottom-up approach; it draws future implications from early warning signals, which are based either on the extrapolation of current data and trends, or on the observations of knowledgeable individuals-so-called "look-out panels." The third is *scanning,* which involves a continual, planned, deliberate, and thorough review of selected published information, and contacts with other "futures watching" organizations.

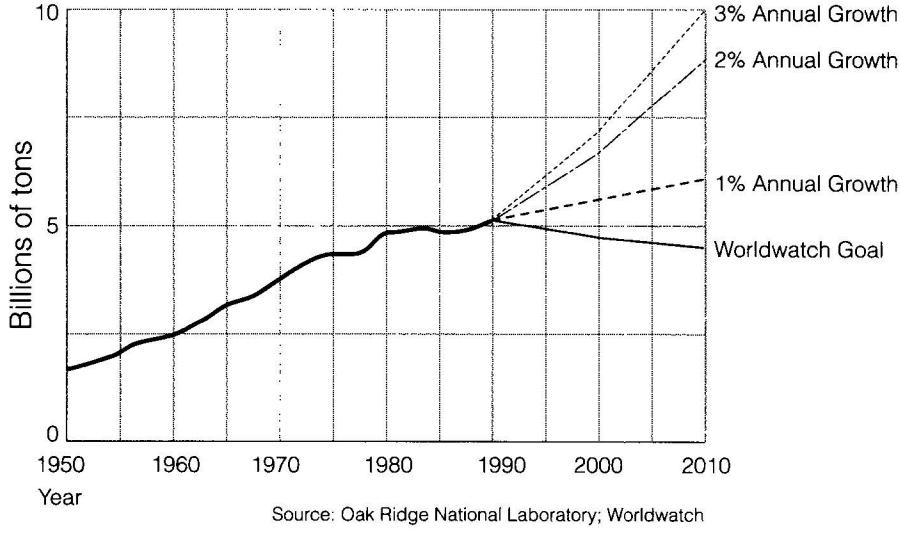
All three approaches individually-and particularly in combination-can provide valuable insights into the possible emergence of environmental problems in the future. (Figure 5 shows the major features of an environmental foresight process.)

In the first case, the top-down approach, scenarios are constructed to study the environmental implications of assumed future developments in "drivers" like energy use, population growth and density, technological advances, waste generation, and demand for natural resources like potable water. These images of possible futures can be studied systematically to estimate when and where environmental problems could emerge, and to assess different types of policies that could be used to obviate them.

Within a given scenario, assumptions concerning the future can be varied to reflect different rates of change (e.g., in energy use, population growth). Postulated conditions about the future also can be changed to reflect a future that is *possible* (exploratory scenarios), or a future that is desirable (normative scenarios). As long as these scenarios display changes in important variables over time within a consistent analytical framework, they can be useful tools for anticipating environmental problems in the future, and analyzing the range of possible responses to them.

In the second case, the bottom-up approach, a specialized "look-out panel" can provide perceptions, observations, and information about important environmental changes on--or just beyond-the horizon. Look-out panels, which can include laboratory scientists, professional

Figure 4. Carbon Emissions from Fossil Fuels, 1950-2010



Source: Oak Ridge National Laboratory; Worldwatch

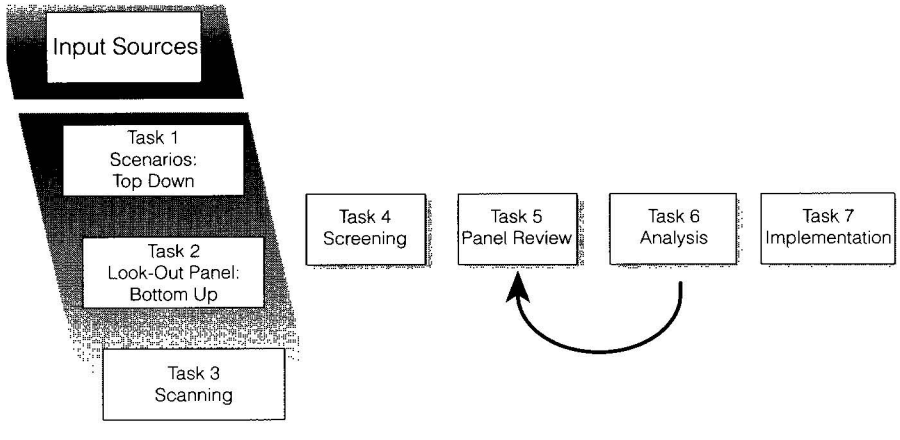
field data collectors, or neighborhood volunteers, function continuously. Through systematic questioning and feedback, panelists can provide observations about the environment that can serve as early warnings of environmental changes, and they can assess the implications of these changes to human health and ecosystem viability.

In the third case, information related to emerging environmental problems can be gleaned from scholarly journals, newspapers, newsletters, business plans, and science-oriented computer bulletin boards. Such sources of information, which can be found in the United States and abroad, include literature and academic disciplines well beyond the bounds of traditional environmental science. Scanning also can be part of the foresight activities of look-out panels.

All three approaches are independently useful in identifying the first weak signals-the dots on the horizon-that warn of emerging environmental problems. In addition, the techniques reinforce one another by providing early warnings from different perspectives. Scenario analyses tend to raise top-down issues generated by the assumptions used in the scenarios (e.g., CO2 buildup as a result of the energy strategies of large countries like China and India). The look-out panels call attention to specific emerging issues (e.g., the introduction of new toxic chemicals). Scanning cuts across both approaches.

All three techniques can help identify potential environmental issues that could be subjected to in-depth risk analysis. All three, if used continuously and interactively, could serve as a first line of defense in protecting future environmental quality.

Figure 5. An Environmental Foresight Process



4. The Value-and Uncertainty-of Foresight

The value of futures research and analysis lies not in making predictions, but in analyzing and organizing information that can help shape decisions and actions.

Futures research and analysis will not result in a complete or accurate picture of the future. The future, after all, is dependent upon personal and institutional decisions, chance, and natural processes, all of which interact in an uncertain and sometimes chaotic fashion, the results of which are impossible to predict with accuracy.

Because of its analytical processes and organizing principles, however, futures research can enlighten contemporary understanding of future possibilities and options. Foresight need not be entirely accurate or complete to be of value to decisionmakers or to society as a whole. The intellectual rigor necessitated by futures research is valuable in and of itself.

The methodological processes of foresight force new ways of thinking and new ways of looking at old realities. They demand comprehensiveness, a receptivity to unusual ideas, and the ability to reconfigure old data from new perspectives. They help set an agenda for discussion and debate within organizations, and they provide a more cohesive basis for planning that can extend across organizations. Because they stretch the bounds of thought, they help decisionmakers discern new paths to organizational goals that may themselves be changing. In short, the processes of futures research can help people explore, understand, prepare for, and shape the future while it is still beyond the horizon, despite the uncertainties inherent in such a distant view.

5. Possible Emerging Problem Areas

Because of large-scale social, economic, technological, and institutional changes already underway, future environmental issues may emerge in at least five different problem areas.

In preparing this report, the EFC applied one of the issue-identification methodologies (i.e., the bottom-up, look-out panel approach) to test the methodology and, in the process, compile a list of possible future environmental issues. The standing committees of the SAB and individual members were asked to use their specific knowledge and expertise to identify potential issues that, given existing "drivers" and data trends, could emerge within the next 5 - 30 years. The EFC then compiled and consolidated the information into a list of 50 specific possible issues. (This list is presented on pages 14 and 15.)

After compiling the list, the EFC applied six criteria that it considers useful in selecting issues that should be analyzed further. (A short description of these six criteria is included in the box below.) Based on the results of its selection process and the inherent similarities among some potential issues, the EFC consolidated them under five large, overarching problem areas: sustainability of terrestrial ecosystems; non-cancer human health effects; total air pollutant loadings; non-traditional environmental stressors; and health of the oceans.

All of these broad problem areas are affected by the major drivers of change discussed earlier in this report. Because they encompass a number of specific environmental issues, they merit more detailed study.

Sustainability of Terrestrial Ecosystems

In the future, the health of biosystems and the sustainable use of natural resources will be stressed by a growing human population, expanding energy use, natural resource consumption, and

Six Major Issue-Selection Criteria

Timing: How soon is this problem likely to emerge, how important is early recognition, and how rapidly can the problem be reversed?

Novelty: To what extent is this a new problem that has not been addressed adequately?

Scope: How extensive-in terms of geography or population affected, for example-is this problem?

Severity: How intensive are the likely health, ecological, economic, and other impacts of this problem, and are they reversible?

Visibility: How much public concern is this problem likely to arouse?

Probability: What is the likelihood of this problem emerging, and necessitating a response, in the future?

Potential Future Environmental Issues Identified by the EFC Look-Out Panel

The following summary statements of the 50 potential future environmental issues describe each issue as if it were, in fact, to emerge. However, the EFC is not predicting that these issues actually will emerge, nor does the EFC believe this list is comprehensive. A different group of people might well produce a somewhat different list. This list is simply one set of possibilities requiring further investigation, analysis, and-if necessary-action.

This list is not meant to connote an order of priority or relative importance. Several issues that will be important in the future-such as cleaning up toxic waste sites-are not listed because they already are well-recognized. More detailed information on each potential issue can be found in Section 5 of the technical annex to this report, available from the SAB.

Human Health Effects and Human Health Risk Assessment

- Health problems and social disorder result from environmental stress.
- The information highway is found to produce psychological and societal impacts.
- New understanding of secondary air pollutants and their risks requires new risk control strategies.
- The total toxic air burden, including synergistic effects among pollutants, requires new, simultaneous risk management strategies.
- Emphasis is placed on multiple end-points and multiple exposures requiring new risk management criteria.
- The application of major advances in basic biomedical sciences leads to radically new methods of human health risk assessment and management.
- Methods to assess and manage exposures and risks from infectious agents are found to be inadequate.
- Technology to control newly recognized pathogens in drinking water is found to be inadequate.

Combined Human Health and Ecological Effects and Their Assessment and Management

- Animal and human health (e.g., reproductive capacity) and ecosystems are affected adversely by global dispersion of estrogen-mimicking chemicals.
- Long-range transport and global accumulations of pollutants are found to be sources of adverse health and ecological effects.
- The need to develop and use early warning signs of potential environmental problems is recognized.
- The introduction of exotic species into ecosystems requires the development of new methods of risk assessment and management.
- The need to establish and maintain an encompassing environmental data resource for risk management purposes is recognized.
- The need to assess unregulated, unevaluated agents (existing and newly introduced) and their unforeseen environmental impacts is recognized.

Climatological Effects and Their Assessment And Management

- The need to understand the mechanisms and effects of local climate change is recognized.
- The need to understand the dynamics of the counteracting effects of atmospheric particles and greenhouse gases on global climate change becomes critical.

Radiation: Health and Environmental Assessment And Management

- Major health hazards of non-ionizing radiation are demonstrated.
- Increasing ground-level ultraviolet radiation results in massive adverse effects on plant and animal life.
- Releases of radioactive materials through accident, war, or terrorism lead to the search for better control mechanisms.

Intergovernmental - Governmental - Institutional

- Local, regional, and global transport and accumulation of pollutants from developing countries becomes a major international environmental problem.
- Inefficient use of energy in transportation and other sectors has growing adverse impact on global environmental quality.
- Increased use of lead and other metals in "clean" vehicles leads to increased potential for adverse impacts on environmental quality.
- Urban infrastructure decay leads to additional and unexpected sources of adverse environmental incidents.
- The environment and U.S. industrial competitiveness are at risk from non-optimal environmental strategies and their costs.
- Industrial uses of wastes cause new problems.
- Scientific/technical core competencies in EPA prove to be inadequate as future challenges arise.
- Environmental problems result from rapid growth in developing countries.
- Local climate changes and environmental impacts result from the use of alternative energy sources.
- Environmental emergencies caused by accidents, terrorism, or crime require enhanced capabilities for international response.
- Environmental degradation in developing countries is exacerbated by poorly controlled exports from developed countries.

Socioeconomic Factors

- Voluntary initiatives fail to produce changes in behavior needed to sustain and improve environmental quality.
- Environmental inequity leads to environmental apathy and violence.

Land Use Issues

- Increasing environmental pressures require improved land-use practices.
- Increasing agricultural intensity in developing countries increases soil depletion, atmospheric particulates, and desertification.
- Inadequate capabilities exist to cope with the environmental consequences of natural disasters.

Ecological Effects, Their Assessment and Management

- The development of regional strategies for environmental assessment and protection is necessary.
- Increasing light pollution is found to be seriously disruptive to many species' physiology and behavior.
- Increasing noise pollution is found to disrupt many species' essential behavior patterns.
- Cumulative environmental stresses lead to increasing decline and die-off of sentinel species.
- The use of alternate energy sources leads to adverse impacts on environmental quality.
- Global climate changes and stratospheric ozone depletion lead to adverse impacts on ecological systems.
- Losses of monoculture crops occur because of unexpected pathogens.

Resource Use and Depletion

- Biodiversity is lost as a result of habitat alteration and destruction.
- The "health" of the oceans deteriorates further.
- Fossil fuel depletion leads to the use of other contaminating, habitat-destructive alternatives.
- Adverse ecological effects result from over-exploitation of natural terrestrial resources.
- The quality and quantity of surface and groundwater diminish as a result of inefficient use and contamination.

Other Risk Management Issues

- The continuing lack of societal consensus on criteria for "acceptable" risk leads to policy gridlock.
- Preventing dispersion of chemicals from diverse sources becomes more critical than point source management.
- The discovery that adverse effects occur at ever-lower exposures leads to the need to develop new means of managing the net risks of multiple pollutant exposures.

land development. As the stresses on biosystems intensify, the preservation of biodiversity will become increasingly important for both economic and environmental reasons. As populations grow and urban areas expand, heightened competition for the use of land will put new strains on natural habitats.

"Management of human health risks in the future will have to consider the full range of health effects under conditions of both single and multiple exposures."

In the years ahead, failure to maintain healthy terrestrial ecosystems could lead to natural resource damage, irreversible losses of species, and fragmentation of habitats, thus endangering both economic and environmental sustainability and seriously threatening human and ecological wellbeing.

Non-Cancer Human Health Effects

The human health effects that can result from environmental pollution include many endpoints in addition to cancer. The loss of fertility and birth defects, for example, have been linked to certain organic chemicals. Developmental problems in children, neurological deficits, faster aging of the lung, and increased rates of mortality and morbidity have been associated with lead, mercury, ozone, and ambient particulate matter, respectively. Management of human health risks in the future will have to consider the full range of health effects under conditions of both single and multiple exposures.

A good example of the kind of human health problem that already is sending early warning signals is the possible "feminization" of animals and humans. An increased occurrence of adverse health effects (e.g., immature male sex organs) in wildlife may be associated with exposures to estrogen-mimicking compounds in the environment. Since humans are exposed to the same chemical compounds, they may be subject to similar risks. For example, lower sperm counts currently being detected in human males could be linked to exposures to estrogen-mimicking compounds.

Total Air Pollutant Loadings

In the future, total loadings of pollutants in and from the atmosphere may pose environmental problems not seen before, or intensify familiar problems beyond the point where conventional controls will solve them. For example, aggregate increases in the use of fossil fuels, combined with long-range transport and local conditions, could lead to regional or global air quality problems (e.g., acid rain and global warming). Deposition of air-borne contaminants could exacerbate problems on land or in the water, problems that demand new kinds of responses. Because many air-borne chemicals are more harmful to human health and ecological systems when acting in the presence of other chemicals, the deposition and accumulation of multiple chemicals over time may lead to human health and ecological damage (e.g., problems related to the leaching of heavy metals from soil).

Non-traditional Environmental Stressors

In the future, previously unrecognized environmental stressors, and recognized stressors that are not adequately monitored or regulated, may be found to pose serious risks to human health or ecosystems. Many unregulated chemicals present in complex mixtures have been linked to such problems as sick building syndrome, multiple chemical sensitivity, and excess morbidity and mortality rates related to air-borne fine particles. Control-resistant microbes, plants, and insects; new kinds of water-borne pathogens; the accidental or misguided introduction of an exotic species into susceptible ecosystems: any of

these factors could lead to human health or ecological problems in the future. Moreover, relatively well-understood stressors could begin to cause new kinds of problems through the slow building of cumulative effects, or the subtle effects of well-understood stressors (e.g., developmental defects in children exposed to low levels of lead) could cause new public concerns.

Health of the Oceans

The oceans, their complex biosystems, and their related food webs are likely to come under increasing stress from the worldwide activities of a growing global population. The adverse effects of overfishing, air and water-borne pollutants, and coastal development on the health and abundance of marine life, including the ecologically critical coral reefs, already are causing concerns in coastal areas. The migration of coastal stressors far from shore threatens the future health of the deep, open ocean as well. Pollutants like PCBs, pesticides, and lead have been found not only in the tissues of fish and marine mammals, but also in bottom sediments and in the seawater itself. Solid waste can be found sparsely distributed throughout the open ocean. Moreover, future exploitation of minerals and oceanic plant life could degrade the ocean environment even further, as similar activities on land have done.

6. The Environment: A Strategic National Interest

National and international environmental issues are rapidly becoming a matter of strategic national interest.

The United States is part of a single global ecosystem. Political, economic, and environmental trends and events in other countries affect the United States; pollution generated in this country affects the rest of the world as well. Because of international environmental and economic linkages, environmental issues rapidly are becoming an issue of strategic national interest.

Within the past few years, the American people have seen firsthand the links between the environment and national security. Nations have gone to war to protect their access to vital natural resources. Others have used environmental destruction in combat as a major instrument of war. Terrorism, environmental accidents like Chernobyl, and nuclear proliferation all have major implications for public and ecosystem health in this country and around the world.

Possible natural resource shortages, competition for scarce resources like potable water, and the transborder movement of refugees driven by deteriorating environmental conditions could lead to destabilized governments, international disagreements, and regional warfare. Overfishing, acid rain, and raw wastewater discharges along and across national borders also are examples of how environmental and natural resource issues can lead to contentious relations among countries, and necessitate international negotiations and agreements related to environmental quality.

Moreover, the future quality of the global environment will be a factor in determining how economic activities are conducted in all countries, including the United States. Based on present trends, the future growth of the economies in regions such as Asia and Latin America, for example, with an attendant increase in energy use, could contribute to global atmospheric pollution that today is caused primarily by economically developed nations. The loss of biodiversity through the clearing of rain forests in South America and Indonesia would be felt by everyone on earth. The stripfishing of marine life in the open ocean is diminishing the foodstocks available to global populations over the long term.

As can be seen from these examples, many future environmental issues, and their relationship to economic development, are likely to be matters of strategic national interest, both to the United States and to other coun-

tries, at the dawn of a new century. Environmental and natural resource-related issues almost certainly will be linked to U.S. national security concerns and to a range of bilateral and multilateral relationships.

> "EPA must look beyond the horizon. And the Agency must be prepared to think in new ways, and act in new ways, based on what it sees."

7. Thinking of Futures at EPA

To limit or avoid future environmental problems, there is a need for EPA to expand its current capabilities and look beyond near-term problems to long-term environmental protection.

As the Federal agency primarily responsible for protecting the environment, EPA has been charged with implementing environmental laws that have been, in large part, reactive. Just as those laws were enacted in response to existing problems, EPA spends most of its time and budget cleaning up, or remediating, pollution problems that already are relatively serious, or that already are causing public concern because of real or perceived environmental impacts. This approach has achieved considerable success in the past.

However, EPA will not be able to limit or prevent future environmental problems with the same regulatory tools and reactive approaches that it has used-and used effectively-in the past. As EPA prepares for a future that will be as challenging as it is uncertain, the Agency must develop new analytical tools, new approaches to decisionmaking, and new partnerships with stakeholders. It must develop a capacity to anticipate problems and respond to them long before their adverse effects are widely felt. The Agency must broaden its understanding of what causes environmental problems, and it must broaden its approach-both internal and external-to solving them.

EPA cannot undertake this effort alone. For the past several years, the Agency has been increasing its cooperative efforts with other Federal agencies, state governments, nongovernment organizations, international groups, and the private sector in order to solve existing environmental problems. That cooperative role will be even more important as the Agency responds to environmental problems anticipated in the future.

EPA is positioned to play an influential role in focusing resources-both from within and outside the Agency-on environmental problems that may emerge in the future. EPA could help coordinate and assess the environmental implications of the futures research already underway in other parts of government. The Agency could work more closely with the U.S. business community to anticipate the future environmental implications of technological innovation. EPA could work more closely with the U.S. Department of State, international organizations, and the agencies of other nations to identify the drivers of emerging regional or global problems, and then help define possible responses to them.

The environmental problems of the future undoubtedly will be facets of large-scale economic, demographic, and technological change. Other organizations-government and non-government, within and outside this country-will have major responsibilities responding to that change. Thus, EPA's involvement in partnerships with other organizations will be even more important in the future.

A forward-looking EPA also will need to change its organizational philosophy and develop new analytical tools. EPA will be unable to respond quickly and effectively to what are likely to be complex, synergistic problems if it continues to use a one-at-a-time, single-stressor, single-species, single-medium, single-end-point approach.

In the face of expected change, EPA has to look beyond urban airsheds to a future where large, multi-state, or international regions are affected by total loadings of atmospheric pollutants that have been transported thousands of miles. EPA has to look beyond its pollutant-by-pollutant control of a relative handful of well-recognized stressors to a future where new chemicals, materials, bioengineered species, and other new agents-either singly or in combination-may cause unanticipated human health and ecological effects. EPA has to look beyond pesticide pollution to a future where habitat loss may be the critical ecological threat. EPA has to look beyond the cancer end-point to a future where several health endpoints may be affected synergistically by multiple stressors, some well-understood, but more unknown. EPA has to look beyond the protection of estuaries, coastal waters, and marine fish stocks to a future where the oceans themselves may be threatened by a variety of economic activities in countries thousands of miles apart and in the oceans themselves.

In short, EPA must look beyond the horizon. And the Agency must be prepared to think in new ways, and act in new ways, based on what it sees.

Recommendations On Environmental Futures

Recommendation 1

As much attention should be given to avoiding future environmental problems as to controlling current ones.

Solving the environmental problems of the future is not a responsibility that should be left entirely to future generations, or only to EPA. The forces of change that will cause those problems are at work now, and people today have a responsibility to shape those forces in ways that will reduce risks, and costs, in the future. Because actions taken today by government and non-government organizations, the private sector, and communities will influence environmental quality-for better or worse-in the future, people today have a responsibility to consider the future consequences of their choices and lifestyles.

Accepting responsibility for the future is not simply a matter of intergenerational equity. It is an idea that builds on the distinctly American belief that each generation should leave its children and grandchildren with a better life.

EPA, and the nation, must begin to think more systematically about environmental problems that could emerge in the future. EPA in particular must begin to focus public attention on environmental problems while they are still beyond the horizon, and then stimulate action-if needed-to solve them.

This orientation to the future requires a broader vision at EPA. It calls for an Agency that goes beyond environmental regulation to environmental protection in its broadest sense, an Agency committed to anticipating possible future environmental problems as well as controlling present and past ones.

To fulfill its basic responsibility to protect the environment, now and in the future, EPA needs to incorporate a new emphasis on environmental foresight into all its activities, including long-range planning, budgeting, research and development, and program management. In the past, these activities have been driven by near-term exigencies like legislative deadlines and the most recent environmental crisis. EPA always will be subject to such pressures, but it must be better prepared for the long term as well.

EPA should not consider this an exercise apart from or in addition to its existing responsibilities. If EPA's futures capabilities are to be effective, they must be integrated into EPA's ongoing programs as a unique but fully interrelated part. EPA should provide the resources necessary to establish environmental foresight as a critical EPA function to be carried out-continuously and systematically-over the long term.

To help communicate the results of its futures research to the public, EPA should consider issuing-once every two years at most-a report that describes potential environmental conditions 20 years into the future under several sets of assumptions. Although the prospective conditions described would be uncertain, the ensuing public discussion and debate would be an invaluable stimulus to public thinking about the future. The report and public debate also would stimulate research and data collection efforts to resolve uncertainties, and that research in turn would clarify the vision of the future described in subsequent reports. A periodic report on environmental futures thus would help focus public thinking

beyond the horizon, and provide a basis for public support of action-if necessary-in the present.

The development of futures capabilities at EPA carries with it an ongoing obligation. Besides providing a suitable budget for the processes of environmental foresight, the Agency must be prepared to evaluate findings, interact with other agencies and organizations, and possibly act on the early warnings that those processes might detect. Some of those early warnings undoubtedly will prove incorrect; nevertheless, if expectations are raised without appropriate budget and follow-through, opportunities will be missed, and results will be disappointing. On the other hand, if the Agency can infuse its policymaking with fresh insights, a sense of dynamism, and a more explicit understanding of future possibilities, the Agency and the nation will reap substantial environmental and economic benefits over the long run.

Recommendation 2

As an essential part of its futures capabilities, EPA should establish an early-warnig system to identify potential future environmental risks.

One essential part of EPA's futures capability should be an early-warning system that alerts the Agency and the nation to specific environmental issues that may emerge in the future. To help provide this early warning, EPA should establish a look-out panel made up of individuals from inside and outside the Federal government. Besides identifying issues, the look-out panel should screen, evaluate, and prioritize them. (One possible way for EPA to establish and use a look-out panel is described in the box on page 23.)

During the course of this project, the EFC itself acted as a look-out panel; i.e., it applied the experience and expertise of the SAB to identify 50 possible environmental issues that could emerge over the next 30 years. EPA should use this list as the starting point for a rigorous, ongoing effort to identify likely emerging issues, assess and prioritize them, and begin to define appropriate responses.

In particular, EPA should review the issues identified by the EFC, and subject one or two to a rigorous analysis that involves other agencies or organizations with relevant expertise. Trend data should be identified and analyzed, and possible response options assessed. EPA's periodic futures report should include this information.

This kind of pilot project would serve several purposes. It would help focus the Agency's initial futures research. It would initiate contacts with other government agencies and non-government organizations involved in futures research. It would begin to establish a process for prioritizing potential future issues for possible near-term response. Finally, it would help EPA gain experience in assessing the effectiveness of different response options.

The choice of initial issues to study is not as important as beginning the process itself. EPA needs to develop a much greater capacity to anticipate environmental futures and identify specific issues that could emerge. It must develop the capability to screen those issues, solicit an external review of findings, and then analyze the range of response options available.

The EFC has taken the first step in environmental foresight through the look-out panel that contributed to this report. EPA should build on this effort by establishing an early-warning system that would identify, rank, and begin the process of responding to environmental issues that are still beyond the horizon.

Recommendation 3

In a longer-term, more comprehensive effort, EPA should evaluate five overarching environmental problem areas related to a number of potential future environmental issues.

Over the next 5 to 30 years, future environmental quality could be affected by social, economic, and technological

changes already underway in the United States and around the world. Because of several factors (e.g., likely severity, visibility to the public, and probability of occurring), some of these problems merit more thorough analysis by EPA and other appropriate agencies. As EPA undertakes to strengthen its futures capabilities, it should pay particular attention to five major problem areas that encompass a number of related environmental issues that could emerge in the future.

Prototype EPA Look-Out Panel

- EPA sets up a prototype "look-out panel" with experts in public health, ecology, socioeconomics, and technology.
- Although managed by EPA, the panel also involves a variety of experts who can observe changes that may lead to problems beyond the horizon.
- Panelists are requested periodically to scan their fields and provide observations about new or intensifying trends and their possible consequences.
- These observations are collected and fed back to other panelists for comment.
- Candidate environmental issues are screened against established criteria.
- Selected issues are analyzed in the context of scenarios and goals developed by the Agency.

Sustainability of Terrestrial Ecosystems

Despite a growing awareness of the vital links between viable ecosystems and economic prosperity, scientific tools useful for assessing the ecological risks that result from the stressors on ecological resources are not well developed. The risks themselves are poorly understood.

Through its framework for ecological risk assessment, EPA has developed a valuable conceptual approach. However, ecological risk assessment guidelines-analogous to EPA's human health risk assessment guidelines-do not yet exist.

The Agency should place a high priority on identifying ecological endpoints-those aspects of biosystems that readily manifest adverse change-and developing guidelines for their use in ecological risk assessments. The endpoints should be selected for their reliability in assessing the effects of various stressors on ecosystem sustainability, and for their usefulness in monitoring ecosystem status and trends. Special attention should be given to the further development of ecological risk assessment guidelines that can address problems associated with loss and fragmentation of terrestrial habitats, freshwater and near coastal zone eutrophication, and the introduction of exotic species.

Non-Cancer Human Health Effects

Although EPA in the past has been concerned almost exclusively with a narrow range of health endpoints (i.e., the various forms of cancer), the Agency should place equal emphasis on non-cancer human health risks. An increasing body of data shows that, in many cases, a range of significant biological responses can be affected adversely by environmental factors. As part of its effort to anticipate future environmental problems, EPA should broaden its human health research and regulatory focus to include respiratory, cardiovascular, immunologic, neurologic, and reproductive endpoints.

For many endpoints, the biologic changes cannot be measured simply by effects on DNA. Such changes are complex, involving the interaction of many organ systems (e.g., the neural, hormonal, and immunologic systems).

Thus new dose-response models should be considered. In fact, the total dose or dose rate may not be the most important variable affecting some human health endpoints. Instead, a specific dose at a specific time in organ development may be a critical variable.

Different people are affected in different ways by exposures to the same environmental pollutants. As science expands its understanding of the differences in human susceptibility, EPA should continue broadening its approach to human health risk assessment by explicitly considering risks to susceptible populations.

Total Air Pollutant loadings

EPA historically has protected air quality by focusing on one pollutant or one impact at a time. This pollutant-by-pollutant approach does not effectively address complex interactions among atmospheric processes, the synergism of pollutants and their impacts, or the deposition of air-borne pollutants on water or land. The long-term, long-distance, and often international characteristics of air pollution are not adequately considered.

To improve current approaches, EPA needs to develop a broader definition of the total air burden, a definition that includes new and emerging air toxics as well as currently regulated pollutants. Also needed is a system for addressing diverse pollutant sources and the effects of the total air pollution burden on air, water, and land. Given the lower and perhaps more uncertain thresholds associated with the total air burden, EPA should shift its focus from the regulation of single pollutants to the control of multiple pollutants based on comparative risk estimates. Integrated assessments of the multimedia effects of air-borne pollutants also may be needed.

Finally, because all airsheds are interlinked across state and sometimes national borders, the long-term protection of U.S. air quality will depend to some extent on the protection of air quality in other countries. The United States should continue to provide international leadership in an effort to link air quality issues with other environmental, energy, social, and economic concerns.

Non-Traditional Environmental Stressors

Up to this point in its history, EPA has paid attention to-and attempted to control-only a limited number of environmental stressors (e.g., the most ubiquitous hazardous air pollutants and a limited number of drinking water contaminants and pesticide residues in food). EPA currently requires U.S. companies to regularly monitor only those chemicals likely to be released and therefore limited by permits and regulations. Larger companies are required to report, facility-by-facility, their releases of about 325 toxic chemicals. U.S. wastewater treatment facilities have to monitor and control a relatively small number of well-recognized pollutants. For infectious diseases, the indicator species monitored in drinking water and coastal beach waters are, at best, only crude indicators of infectious risk.

Because future environmental quality may be at risk from environmental stressors other than the chemical and microbiological contaminants monitored and regulated in the past, EPA needs to improve its capabilities to identify, understand, and, if necessary, target for control a greater number of those stressors that could lead to future risks. Examples of some potentially important stressors not presently monitored include the new technologies that could increase human exposure to various forms of non-ionizing radiation, the persistent chlorinated hydrocarbons that could disrupt endocrine systems in humans and animals, and the newly-recognized pathogens that are being found in drinking water. EPA should attempt to identify, monitor, and analyze the most potentially serious of these unconventional stressors, and then assess their adverse effects on human health and ecological systems.

Health of the Oceans

Although indications of deterioration in ocean health are still preliminary and subject to scientific debate, the scope and value of the resource at risk are undeniably enormous. Thus the early warning signs of possible ocean deterioration-the "dot on the horizon"-should be taken seriously. Coordinated, international steps should be taken now to better define the causes and effects of ocean pollution, and to anticipate problems that may require a coordinated international response in the future.

For example, much more needs to be known about conditions and trends in the open ocean. Current adverse effects already evident in the oceans need to be monitored more widely and better understood. Although the effects of overfishing on human nutrition and international economics are apparent, more needs to be learned about the effect of these "holes" in the food web on other marine organisms.

Further, international cooperation is needed to gather and analyze information that now is scattered among different agencies and countries. This effort is essential to identifying gaps in knowledge and directing future research. Coordinated action should include studies of the life cycles of ocean flora and fauna, sampling and analysis of their tissues and the ocean's waters and sediments, and efforts to expand current understanding of marine toxicology, ecotoxicology, and the relationships between coastal and deep waters and between oceanic and terrestrial environments.

These types of studies will require many years of coordinated international effort. Given the early warning signals now being observed, and the value of oceans to long-term economic and ecosystem sustainability, such coordinated efforts should begin as soon as possible.

Recommendation 4

EPA should stimulate coordinated national efforts to anticipate and respond to environmental change.

In its report Reducing Risk (September 1990), the SAB recommended that EPA increase its efforts to integrate environmental considerations into broader aspects of public policy. That recommendation was based on a finding that environmental quality is affected by national policies related to energy use, agriculture, economic development, transportation, and foreign relations. Consequently, EPA was advised to work closely with the appropriate Federal agencies to ensure their policies are sensitive to potential environmental impacts.

Since 1990, this integration of environmental considerations into broader national policy has taken place in a number of areas. For example, EPA has worked fruitfully with the Department of Transportation to implement the Intermodal Surface Transportation Efficiency Act (ISTEA), and the Agency is playing an important role working with the Department of Energy's implementation of the Energy Policy Act. EPA has participated with a number of Federal agencies to develop its Environmental Monitoring and Assessment Program (EMAP) and the National Human Exposure Assessment Survey (NHEXAS). This progress is encouraging.

The same kind of cooperation is needed to anticipate, and respond to, potential environmental risks in the future. EPA should develop stronger partnerships with other Federal agencies, state governments, and relevant non-government organizations involved in futures-related activities. In particular, EPA should undertake cooperative efforts to: 1) improve and integrate environment-related futures research; 2) focus national attention on drivers of environmental change; 3) improve environmental education and awareness; and 4) develop an integrated environmental data system.

Improve and Integrate Environment-Related Futures Research

A number of Federal agencies, private businesses, and non-government organizations currently conduct foresight activities, but those activities tend to be discontinuous-depending on budgets-and coordinated poorly, if at all. EPA should work with them to improve the methodologies used in futures research, strengthen the linkages between the various efforts, and ensure that the environmental implications of futures research are not ignored.

In particular, EPA may wish to conduct its own analysis of the environmental implications of futures research at other Federal agencies, or it may choose to work with the primary agency involved. In any case, EPA should work to make Federal foresight efforts thorough, complementary, and supportive of environmental policymaking.

Moreover, EPA should reach out to private businesses, state governments, and to other agencies and organizations within and outside the United States that have experience in futures research, especially environmental futures research. Such research should feed into and complement EPA's work. In fact, one of the most important contributions that EPA could make in this area is to help establish a forceful Federal presence that helps link the valuable foresight activities being conducted elsewhere.

Finally, EPA should work with other organizations to improve the understanding and expand the use of environment-related futures research by other parts of the Federal government. The U.S. Congress and the science offices in the White House, for example, should use environmental foresight more extensively in their activities. EPA can help make that happen.

Focus National Attention on Drivers o Environmental Change

Because of historical circumstances and its legislative mandates, EPA has tended to focus its energies on the environmental end results of broad economic, demographic, and technological changes (e.g., controlling emissions from cars and forcing changes in fuel to reduce urban ozone pollution, improving the design and operation of landfills and incinerators to minimize waste-related contamination of soil and groundwater). Only recently has EPA begun to attack the roots of such problems (e.g., influencing the design of consumer products to reduce environmental impacts, encouraging reductions in waste streams through pollution prevention).

To limit or avoid future environmental problems, the nation and EPA must pay more attention to the forces- or drivers-behind those problems. The increased concentration of people in urban corridors; the development and use of new technologies, manufacturing processes, and materials; the expanded use of fossil fuels both in this country and abroad: these kinds of future, large-scale changes are likely to give impetus to new kinds of environmental problems that demand new kinds of responses. To the extent that the American people and EPA understand-and anticipate-the drivers of change, and then take action to avoid the problems they may engender, the risks and costs imposed on future generations will be reduced.

For example, EPA may not be able to influence the growth of heavily-populated urban transportation corridors, but anticipating that growth before the fact, and recognizing that such growth may overwhelm current techniques and technologies for controlling air pollution, may give EPA and other agencies the head start they need to develop new, more effective options for remediation. Similarly, by anticipating the future widespread use of new materials (in the batteries of electric vehicles, for example), EPA could begin to assess potential recycling, reuse, and disposal problems.

In short, future environmental conditions are likely to be shaped in large part by forces of change already

evident. EPA should not wait for those conditions to manifest themselves before the Agency begins to formulate its response. It should begin studying the forces of change now, and then give the nation an early evaluation of how those changes could affect the environment.

Improve Environmental Awareness and Education

One of the single most important drivers of environmental change in the future will be the environmental awareness and attitudes of people in this country and abroad. Environmental awareness influences individual behavior, and individual behavior is a fundamental factor affecting environmental conditions. A country's environmental laws and institutions are shaped by the environmental awareness of its citizens, as awareness is translated into policy. Because environmental awareness will exert such a strong influence on future environmental conditions, EPA's efforts to anticipate and respond to future environmental problems should include a strengthened commitment to environmental information and education.

In its 1990 report Reducing Risk, the SAB made a similar recommendation in the context of expanding the types of tools used to reduce risk. The SAB recommended that EPA use information and education, among other things, to complement the Agency's more traditional command-and-control regulatory approach. Information and education clearly are the most useful risk reduction tools for certain kinds of environmental problems, and, as demonstrated by EPA's pollution prevention and environmental education programs, the Agency has been using those tools more often and more effectively over the past few years.

Seen in the context of potential future environmental problems, the improved environmental awareness of the general public is even more important. An informed and alert public serves, in fact, as a broad-based lookout panel that can see and draw attention to the first signs of unusual environmental degradation in the future. An aware and concerned public will be more likely to volunteer to collect the sampling data (e.g., during nationwide bird counts and beach cleanups) that is useful in illustrating particular environmental conditions. Most important, a public that is sensitive to the environmental implications of personal behavior will be more willing to act quickly if behavioral changes are needed in response to future environmental problems.

"A country's environmental laws and institutions are shaped by the environmental awareness of its citizens, as awareness is translated into policy."

While EPA is only one of several government agencies that have a role in providing public education and information, it has the primary Federal responsibility for environmental protection. Consequently, it is appropriate for EPA to take the lead in formulating a national environmental education and information program explicitly focused on environmental futures. Key participants in this effort should include state

and local school administrators, teachers, parents, students, businesses, and the media.

Futures-oriented environmental education also should be promoted on an international basis. Given the important linkages between personal behavior and cultural values-and their influential role in national economic and environmental policies-information as to how citizens can improve environmental quality will be a critical component in reducing future environmental risks. Multilateral institutions and non-government organizations are especially suited for funding and implementing environmental education and awareness programs in cooperation with national and local governments.

Develop an Integrated Environmental Data System

To better understand the different mechanisms of future environmental stress, and the range of possible human health and ecosystem effects, EPA should begin working with states, industry, other Federal agencies, and international organizations to construct a broad, integrated database that could be used to link perceived or suspected effects with possible stressors. Such a database would help users identify previously undetected and incipient ecological or human health changes. Data analysis could provide early-warning signals of increased human or ecosystem exposures to conventional and unconventional stressors. When combined with improved understanding of biological responses to such exposures, this analysis could help guide policy and action well before severe ecological and human health effects were documented.

Before trends in atmospheric, aquatic, and soil contamination can be studied, baseline data must be collected over a sustained period from a network of background sampling stations. Data collected at such stations, whether they are fixed-site, mobile, or satellite monitoring systems, have to be subject to quality-control and made available to analysts inside and outside government. Most important, these data have to fit together to paint a consistent, coherent picture of environmental quality. In other words, if the data to be included are selected carefully, their analytical value in the aggregate will be greater than the value of their separate parts.

Much of the data needed for such a database already is being collected by EPA and other agencies. For example, earth-observing satellite systems operated by the National Aeronautics and Space Administration (NASA) currently collect data on vegetative growth patterns, atmospheric haze, and trace gases. A National Health and Nutrition Examination Survey (NHANES) is conducted on a regular basis by the Department of Health and Human Services (DHHS). EPA collects an enormous amount of data related to air quality, drinking water quality, human exposure (NHEXAS), and ecological status and trends (EMAP), among other things. The Fish and Wildlife Service, the Forest Service, the National Oceanographic and Atmospheric Administration, scientists under contract to the National Science Foundation, and others collect data describing a variety of environmental conditions. The Federal and state health care systems collect detailed information on overall U.S. mortality and morbidity rates, while DHHS and various states collect occupational health and exposure data in surveillance networks.

A particularly useful, and previously unavailable, source of environmental data is the Department of Defense (DOD). DOD already has in place data-gathering equipment and databases useful for assessing global-scale ecosystems. EPA should tap into DOD's expertise in this area, and integrate DOD's equipment and methods with more traditional environmental data-gathering efforts.

As evidenced by this partial list of Federal data-gathering activities, the problem in constructing an integrated data network useful for anticipating future environmental issues is not necessarily the need for more data or larger

data collection budgets. Rather, the challenge will be to assemble useful data already being collected into a coherent database that is accessible to a wide variety of users.

EPA should review the different kinds of environmental and health surveillance data currently available, and then identify the set that is potentially most useful for anticipating environmental futures. If there are clear gaps in the data, the Agency should recommend ways for closing those gaps. Working with the primary collectors of data, EPA should help design a comprehensive system for aggregating critical data elements, updating the data, assuring its quality, and making the information widely available to users inside and outside the government, and inside and outside the United States.

Recommendation 5

EPA, as well as other agencies and organizations, should recognize that global environmental quality is a matter of strategic nutional interest.

There is little doubt that political, economic, and environmental events in other countries can affect environmental quality in the United States. Even when such events do not affect the U.S. environment directly, as with the oil fires in Kuwait, they can affect international environmental and economic resources in which the United States has a strategic interest. Consequently, to protect both the national interest and the quality of the U.S. environment over the long term, it is essential that global environmental quality be recognized-publicly and formally-as a strategic interest of the United States.

In the past, the role of environmental issues in U.S. foreign policy has been determined on a case-by-case basis. An overall, strategic environmental policy has never been defined for this country. U.S. foreign policy objectives related to the environment have not been articulated, environmental risk contingencies have not been identified, and the criteria for various levels of U.S. action in the face of an environmental emergency have not been laid out.

This shortfall in strategic thinking could be detrimental in a future where international competition for natural resources like ocean fish and potable water may pose as much of a threat to international political stability as an interrupted oil supply does today. Moreover, environmental terrorism, the large-scale dislocation and migration of people because of deteriorating environmental conditions, and the rapid growth and urbanization of global populations all could pose potential risks to global environmental quality.

In this context, the protection of environmental quality represents one of the most important strategic issues facing the United States in the 21st century. To anticipate and forestall the environmental problems of the future, the United States must begin to develop strategic national policies that link national security, foreign relations, environmental quality, and economic growth. EPA should play a strongly supportive role in this process.

Over a number of years, the U.S. government-including EPA-has undertaken a series of cooperative environmental activities with other countries such as China, Russia, and Japan. EPA is contributing to an environmental office in Budapest to assist Central European countries redress the environmental problems created and neglected while they were part of the Soviet Bloc. These efforts, and others like them in the Caribbean region and Asia, contribute U.S. experience and technical expertise to cooperative efforts aimed at remediating existing environmental problems in other parts of the world.

The U.S. Government should expand such cooperative international activities and target them not only at existing problems but also at the larger forces or drivers (e.g., population

growth and urbanization, increased fossil fuel use, technological developments, environmental attitudes) that may contribute to future problems. Besides helping other countries control air pollution in urban areas, for example, EPA should be prepared to assist them in identifying options for minimizing such problems in the first place (i.e., through the use of alternative fuels or innovative energy-efficient technologies). In other words, as EPA begins to anticipate future environmental problems in this country, the Agency should join with other nations to apply the same process internationally.

While EPA's technical and financial involvement in such activities may provide substantial benefits to other countries, this work also supports a well-defined national self-interest. EPA simply will not be able to anticipate, and respond to, U.S. environmental problems in the future without considering the drivers of change in other countries, and without involving other countries, multilateral institutions, and non-government organizations. In the future, many of the same environmental problems that emerge in other countries are likely to emerge here, and they are likely to be linked.

Many facets of this kind of broad, futures-oriented activity lie outside EPA's area of expertise. Some nations, for example, may request and need assistance in areas such as population planning and alternative fuels development, where other U.S. agencies hold the primary responsibility. Consequently, EPA should join with other Federal agencies, multilateral institutions, and non-government organizations in futures-oriented partnerships beyond its borders.

The Reports of The SAB Standing Committees

The Environmental Futures Committee invited the standing committees of the SAB to conduct futures exercises in their areas of expertise, and then prepare reports on their conclusions and recommendations. The five reports that resulted from this effort are summarized below. Anyone wishing a copy of these reports should write or call:

Committee Evaluation and Support Staff
Science Advisory Board
401 M St., S. W. (Mail Stop 1400)
Washington, D.C. 20460
(202) 260-8414

Report of the Drinking Water Committee (EPA-SAB-DWC-95-002)

The Drinking Water Committee examined trends in water resource demands, water treatment technologies, and drinking water quality, and their likely impacts on the country's ability to provide safe drinking water in the future. The committee offered five major recommendations:

1. Improve the existing management of renewable water resources.

   A national program to improve existing renewable water supplies should include: 1) prevention of further water supply deterioration and better management of land-use and forestry practices; 2) improved ability to capture a larger portion of renewable water supplies, including through wetland protection and expansion; and 3) implementation of water recycling and conservation practices to improve efficiencies of water use, including lining of irrigation canals, installation of more efficient plumbing, and consideration of reallocation of water rights.

2. Support the consolidation of small distribution systems.

   Consolidation of small water systems should be encouraged to improve the overall quality of water and provide the necessary revenue to implement treatment technologies now available to the larger systems. The drive toward consolidation should take advantage of the replacement of distribution systems that will be necessary in the near future in many communities.

3. Support changes in treatment technologies.

   The traditional concepts of water treatment and distribution can be expected to change substantially in the future as a result of the changing profiles of contaminants of concern. A number of promising technologies, including membrane treatment, will need to be improved and implemented. In addition, methods will need to be developed for stabilizing water in distribution systems that do not depend on maintenance of a residual oxidant.

4. Greatly accelerate research to spur advances in risk assessment methodologies for both chemical and microbiological contaminants.

   Modifications of current water disinfection treatments must consider the magnitude of microbial risks that may be introduced as a result of those modifications, as well as the creation of other disinfection by-products. To do this effectively, substantial research into risk assessment methodology for both chemical and microbial risks is needed. Without such research, large public investments for changes in drinking water treatment plants may be made on an inadequate and possibly incorrect scientific basis.

5. Establish a surveillance or alert system for emerging water-borne pathogens.

   The almost certain changes in water treatment and distribution systems in the next decades, and the increased consolidation into larger systems for efficiency of control and delivery, pose the possibility of generating and transmitting to large populations heretofore unknown microorganisms that may pose serious health risks. A surveillance or alert system to detect these microorganisms early should be put in place.

Report of the Ecological Processes and Effects Committee (EPA-SAB-EPEC-95-003)

The Ecological Processes and Effects Committee developed an approach for examining key future developments, and then applied it to assess the potential future ecological consequences of human activities. Based on its study, the committee came to four key conclusions:

1. The conceptual model for futures analysis, which combines the use of scenarios and the analytical framework for ecological risk assessment (ecorisk framework), provided a formalized approach for assessing future environmental risks.
2. This approach, when applied to two scenarios making differing assumptions about future energy costs, revealed possible ecological consequences that probably would not have been determined through an unstructured brainstorming.
3. Attempting to identify the ecological consequences of the two different energy scenarios demonstrated to the committee that the value of examining futures lies in the process rather than the results of that examination.
4. The committee's scenarios/futures analysis reaffirmed the conclusions in *Reducing* Risk that national ecological risks are dominated by larger-scale and longer-time issues, including global climate change and habitat alteration, ozone depletion, and the introduction of exotic species.

Report of the Environmental Engineering Committee (EPA-SAB-EEC-95-004)

The Environmental Engineering Committee chose to study four technology-related issues that may emerge in the future: 1) fostering environmental protection while helping to assure sustained industrial development in an increasingly competitive manufacturing economy; 2) responding to increasing societal pressures for the redevelopment of industrial sites and remediation of land; 3) preparing to address threats posed to human health and natural resources by transient phenomena; and 4) correcting insufficiencies in core technical competencies that are needed to address future environmental challenges.

Using a look-out panel, the committee identified eight additional issues that EPA should consider evaluating: 1) fossil fuel depletion; 2) industrial accidents and/or terrorist activities; 3) deterioration of urban infrastructure; 4) low-cost benefits of some environmental management strategies; 5) reservoirs of environmental contaminants; 6) pathogens in drinking water; 7) electromagnetic radiation; and 8) industrial ecology.

Based upon its study, the committee prepared four recommendations for EPA:

1. EPA policy recommendations concerning clean technologies should be constructed and balanced carefully to benefit both the environment *and* U.S. industrial competitiveness.
2. EPA should ensure the development and use of appropriate technology to enable the redevelopment of contaminated urban industrial sites and remediated land.
3. EPA should strengthen its capabilities and readiness to address potential environmental consequences of natural disasters associated with transient events such as river floods and violent regional storms, especially considering trends in population growth and land use.
4. EPA should systematically identify and examine the essential and distinct scientific and engineering capabilities (core competencies) needed to address technical aspects of its present and anticipated future mission, and then strengthen them where needed.

Report of the Indoor Air Quality and Total Human Exposure Committee

(EPA-SAB-IAQ-95-005)

The Indoor Air Quality and Total Human Exposure Committee studied opportunities for advances in the science and art of human exposure assessment, and the opportunities that such advances could offer EPA and the nation for improving risk assessment and management. The committee recognized that significant advances could be made in three critical areas:

- Microsensor and microprocessor technologies;
- Biomarkers of exposure; and
- Database resources.

Based upon its study, the committee prepared five specific recommendations to EPA:

1. Develop a mechanism to support the research, validation, and application of: a) more sensitive and specific microsensors, biomarkers, and other monitoring technologies and approaches for measuring exposures; and b) validated data on associated exposure determinants, including demographic characteristics, time-activity patterns, locations of activities, and behavioral and lifestyle factors.
2. Establish a mechanism to develop, validate with field data, and iteratively improve models that integrate: a) measurements of total exposure and their determinants; b) a better knowledge of exposure distributions across different populations; and c) the most current understanding of exposure-dose relationships.
3. Develop, in cooperation with other agencies and stakeholders, a robust database that reflects the status and trends in national exposure to environmental contaminants.
4. Develop sustained mechanisms and incentives to ensure a greater degree of interdisciplinary collaboration in exposure assessment and, by extension, in risk assessment and risk management activities.
5. Take advantage of improving capabilities in exposure assessment technology, electronic handling of data, and electronic communications to establish and disseminate early warnings of emerging environmental stressors.

Report of the Radiation Advisory Committee (EPA-SAB-RAC-95-006)

The Radiation Advisory Committee (RAC) formed the Radiation Environmental Futures Subcommittee to assess future potential problems in environmental radiation. The subcommittee scanned potential future developments in the field of radiation, particularly as they pertained to environmental radiation. Based on its study, the subcommittee recommended that EPA consider the following activities:

1. Place greater emphasis on providing scientifically credible information, while relying less on a regulatory role in risk management.
2. Participate in the joint development of national energy policies, focusing on the overall environmental consequences of different energy production options, the roles of alternative energy sources-including nuclear electricity generation-in curtailing greenhouse gases, potential releases of radioactive materials to the environment, radioactive waste management issues, and possible increases in ultraviolet radiation.
3. Incorporate into its program activities research findings related to radiation exposures, dose-response models, and radiation effects, especially in regard to differences in individual susceptibility.
4. Provide an environmental perspective to assure control of nuclear weapons materials through conversion to energy use and/or secure disposal.
5. Stimulate and track research on the potential health effects of exposure to non-ionizing radiation, and provide non-regulatory Federal guidance and advice on the prudent avoidance of unnecessary risks from potential sources of exposure, if such risks are shown to exist.
6. Provide Federal leadership in activities involving pollution prevention, the management and disposal of radioactive wastes, and development of criteria and standards for cleanup of sites containing radioactive and mixed wastes.
7. Exercise its Federal radiation guidance role, in collaboration with other Federal and state agencies, to reduce human exposure during medical uses of radiation.
8. Continue efforts to characterize potentially high-risk radon regions, improve knowledge about radon risks, and develop more accurate methods of measuring and mitigating radon in buildings.
9. Become the primary source of information on environmental radiation by providing advice, and guidance where appropriate, on the scientific basis for risk management decisions and by identifying research needs in radiation-related areas.
10. Use a process of foresight to develop a capability for scanning the future in order to be proactive, rather than reactive, in shaping environmental radiation policies.

The technical annex to this report, Futures Methods and issues (EPA-SAB-EC-95-007A), provides detailed background material prepared by the Environmental Futures Committee of the SAB. To receive a copy, contact:

Committee Evaluation and Support Staff
Science Advisory Board
401 M St., S. W. (Mail Stop 1400)
Washington, D.C. 20460
(202) 260-8414

From: Baird, Richard (GOV)
Sent: Wednesday, December 30, 2015 6:57 PM
To: Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Kelenske, Chris (MSP); Holland, Meegan (GOV); Murray, David (GOV); Redford, James (GOV); Becker, Timothy (DHHS); Creagh, Keith (DNR); Roberts, John (DTMB)
Cc: Etue, Kriste (MSP); Lyon, Nick (DHHS)
Subject: Attorney Client Work Product (Draft), Privileged and Confidential
Attachments: A Proposal to Create the Flint Water Inter.docx; IA Coord Com Org Chart.jpg; IAP Flint Water 2015-12-29.pdf

Team:

Today Harvey and I met with the Flint Water Task Force. It was a good meeting. People were pleased with the G's statement from the prior day. Captain Kelenske joined us and we had a very good discussion about moving forward with the creation of the Flint Water Crisis Agency Coordinating Committee (FIACC). Tim Becker and Captain Kelenske provided me with a fair amount of input. I also read the City of Flint Incident Action Plan for a State of Emergency which Chris received today (enclosed for those who wish to read it as well). I have distilled all of this into a two page plan that I want your edits and comments on and a one page organizational chart (now presented in the "governor's colors" according to our fine people in Communications). Spoiler alert—I made Captain Kelenske Vice Chair of the whole shebang (with the Colonel's blessing) so Harvey wouldn't get lonely.

Here is my ask of you:

1) Within 24 (sooner if you can) hours give me your comments and input
2) Tomorrow I will turn around a final document for Jarrod to review with the Governor either New Year's Day or Saturday
3) Ideally, Governor will approve Harvey sending it to Mayor Weaver Saturday (Sunday latest)
4) Mayor needs to know that this is what the Governor wishes to discuss at the meeting January 7 along with financial resources that we still need some estimates on cost from DHHS for
5) Meegan and Dave need to noodle how best to get out front with this and change the narrative focus on Monday's Genesee County declaration of emergency

I know we are all working way too hard for what should be a rest and recharge period but I do appreciate everyone's efforts and I know the Boss really does as well.

Regards,

Rich

A Proposal to Create the Flint Water Inter-Agency Coordinating Committee (FIACC)

In collaboration with the Flint After-Action Task Force, MSP Captain Chris Kelenske, DHHS Chief Deputy Tim Becker and DHHS Director Nick Lyon, Harvey Hollins and Rich Baird are recommending the immediate creation of the above referenced entity, with its sustained role and responsibility enabled under the Governor's Executive Order.

Statement of Need

Due to a combination of resource constraints, inexperienced personnel, "silo" bureaucratic processes and reactionary approaches to immediate problems, there is a nearly complete lack of coordination, communication, and connected management amongst all the departments and stakeholders who must work together to ensure Flint's return to clean, safe water and to coordinate mid and long term efforts to mitigate and address future health and behavioral consequences from lead ingestion. This group MUST be stood up regardless of whether (or when) the conditions required for a declaration of emergency are met by the City, County, State or Federal authorizers. This coordinating body must include:

- The creation of a routine information process between all parties.
- Pursuit of other avenues of funding including federal grants and legislative appropriations.
- While the Emergency Management Act or the Stafford Disaster Relief and Emergency Assistance Act may be mechanisms to fix the issues in Flint, portions of the Emergency Management Act outlining management of events are applicable and should be implemented without delay (e.g. Local emergency operations plans/emergency operations guides as well as emergency operations support plans).

Action Plan and Establishing the FIACCC

It appears that a request for a Governor's declaration may be from the county as soon as January 4, 2016. The state's Emergency Coordinator (Capt. Kelenske) will evaluate the request and provide a recommendation whether to issue a declaration, following established protocol and due diligence. But immediately, we will:

1. Establish an interagency workgroup Chaired and Vice-Chaired by Harvey Hollins and Chris Kelenske, respectively, and be comprised of DHHS, MDEQ, MSP, Treasury, Genesee County, City of Flint, MDE, LARA and external Subject Matter Experts (SMEs). Civil Rights may be added at a later time. If additional agencies/stakeholders who can assist with accomplishing the action plan are needed, they will be added. Personnel must be goal oriented, transparent with findings and measures of progress, and able to work toward accomplishing the Incident Action Plan created by the state in a timely manner. A draft Organization Chart is attached under separate cover.
2. This body should be created by Executive Order and it must complement and not replace the current system under the Emergency Management Act. In fact, it should demonstrate how to best leverage support where existing laws fall short under a man-made emergency.
3. Utilize the National Incident Management System and Unified/Incident Command as appropriate.
4. Establish routine communications protocols at the operational, executive, and legislative levels as determined appropriate.
5. Establish interagency workgroup objectives using the following as a starting point.

Interagency Workgroup Objectives

1. Determine and convey acceptable standards for potable water.

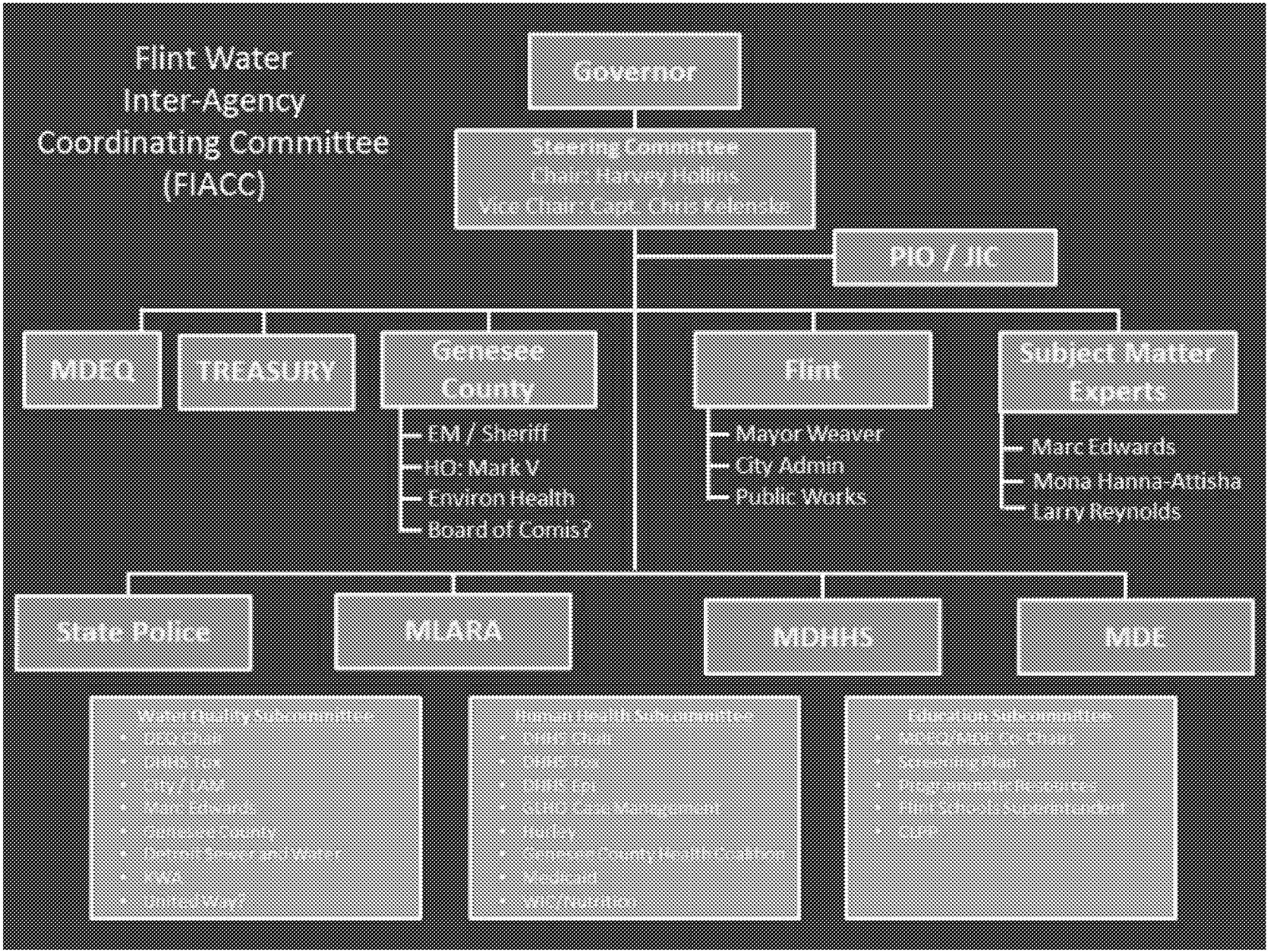
- Identify needed remediation.
- Convey the remediation plan objectives to all stakeholders and interested parties.
- Logistics plan for distribution and serving homebound citizens with water and filtration
- Implement the plan.

2. Determine health impacts for the impacted population.
    - Identify treatment methods.
    - Nutrition education and support
    - Coping with lead exposure (care, monitoring, neurodevelopmental screening, access to DBP specialists, psychologists/psychiatrists, expanded county services, etc.)
    - Convey the treatment plan objectives to interested parties.
    - Implement the plan.
3. Establish a public information protocol to effectively inform the community of the situation and actions taken.
    - Identify existing Public Information outlets within the city, county, and state.
    - Establish a Joint Information Center
    - Provide for Emergency Alerts and Updates
    - Leverage public and private education schools
    - Determine official information flow and approval of information.
    - Convey to interested parties.
4. Assess the status of the infrastructure and determine feasible actions to upgrade the water system.
    - Determine current state of the infrastructure.
    - Develop priorities, costs, and potential funding sources for infrastructure upgrades as part of a long term recovery plan.
    - Seek partners to assist (NGOs, Foundations, Business, etc.)
    - Implement the plan.

<u>Final Thoughts</u>

After the team provides input to this document, I would ask that Governor Snyder review and approve the approach, authorize Harvey Hollins to get the plan to Mayor Weaver no later than this weekend, and then proactively communicate the plan regardless of whether we get an Emergency declaration or not.

Also, we do believe setting up an Emergency Command Center which requires 24/7 staffing is sensible until AFTER Genesee County has demonstrated they did all they could and couldn't solve the problem. That is what is required under the law.


Flint Water Inter-Agency Coordinating Committee (FIACC)
Governor
Steering Committee
Chair: Harvey Hollins
Vice Chair: Capt. Chris Kolenda
PIO / JIC
MDEQ
TREASURY
Genesee County
EM / Sheriff
HD: Mark V
Environ Health
Board of Comis?
Flint
Mayor Weaver
City Admin
Public Works
Subject Matter Experts
Marc Edwards
Mona Hanna-Attisha
Larry Reynolds
State Police
MEARA
MDHHS
MDE
Water Quality Subcommittee
Public Health Subcommittee
Education Subcommittee

CITY OF FLINT

INCIDENT ACTION PLAN

STATE OF EMERGENCY

Objectives:

To provide short term relief and long term solutions in addressing the man-made emergency of increased lead levels in the City of Flint (the "City") water system resulting from the switch to Flint River as the City's water source as well as the threat to public health related to elevated blood lead levels in Flint residents, without interruption of the provision of public safety and other essential public services. Due to the fluidic nature of emergencies and the complexity of the City of Flint's declared emergency, this plan serves as a framework and may be altered as the emergency develops.

The Response Framework

The purpose of this plan is to organize efforts on behalf of the city to assess the extent of the City's infrastructure needs and risks to public health, provide immediate relief to those who are at risk, and establish long term solutions. In addition, the city must ascertain what immediate relief and long term solutions the City is capable of implementing based on what resources are available. For any activities that are beyond the resource capacity of the City, external sources of funding, supplies, and manpower must be sought.

There are a number of steps that must be taken in accordance with the Flint Emergency Support Operations Plan (SEOP), in order for the City to be compliant with the Genesee County Emergency Action Guidelines. These include the activation of the Incident Management Team, the Emergency Operation Center, and the sharing of essential documents with the County, including this plan. Information must also be shared by the City's Public Information Officer on a regular basis, as required by the SEOP.

This plan calls for the provision of immediate relief to those at risk in our community. Special consideration must be given to residents who belong to underserved groups, such as those who are homebound, undocumented, in poverty, etc. Additional consideration must also be given to the equitable provision of services throughout our community in order to equally protect the health and safety of every member of our community.

Implementation of this plan is to be conducted by the Incident Management Team, which will monitor the effective delivery of goods and services in order to address the conditions of the emergency.

Understanding the Issue:

October 1, 2015, the Genesee County Health Department issued a Public Health Emergency after elevated blood-lead levels were found among children in the City of Flint. This incident correlates with elevated levels of lead found in the City's drinking water after the City switched water sources in April of

2014 to the Flint River. The scope of this problem appears to be limited to Flint City Water Customers and their dependents. Public agencies from several levels of government, as well as charitable, nonprofit organizations have partnered with the City to provide immediate relief to Flint residents, including the expansion of health services, the provision of bottled water and NSF rated water filters. The city is also seeking long term infrastructure improvements to eliminate lead and other contaminants from the water system.

Gov. Rick Snyder appointed a task force to review "actions regarding water use and testing in Flint" and to make recommendations for future guidelines: Members of the state task force are Ken Sikkema of Public Sector Consultants, Chris Kolb of the Michigan Environmental Council, Dr. Matthew Davis of the University of Michigan Health System, Eric Rothstein of the Galardi Rothstein Group and Dr. Lawrence Reynolds of Mott Children's Health Center.

In an effort to halt the further escalation of this crisis, the City returned to receiving its water from the Detroit Water and Sewerage Department (DWSD) on October 16, 2015. Since that time, additional corrosion control program has started, estimating a reduction of lead levels over the next six months. In light of these efforts, concerns surrounding the quality of water and health of the residents persist to the point that Mayor Karen Weaver declared a State of Emergency on December 14, 2015 so as to resolve this crisis once and for all.

The current challenge facing the City is providing immediate relief and long term solutions of the quality of the water and health of residents while the City remains in a financially critical condition. It is hoped and expected that higher levels of government recognize this emergency as it pertains to the condition of the City's infrastructure and health of its residents, and do all things necessary to assist the City in the provision of relief and the execution of capital improvement projects that will eliminate the causes of this emergency.

Enhancing Understanding:

Information Collection

Essential Elements of Information (EEIs) can be qualified as the City's water tests containing lead results, the verification of lead water lines (both public and private), and health information. Water testing is performed by the City's water plant in cooperation with the MDEQ. The verification of lead water lines is being handled by University of Michigan Flint, who is currently digitizing the City's water line information and PSI Engineering, who is initiating the effort to verify lead lines by excavating an initial 150 residential lines. This information allows the Incident Management Team to assess the current condition of the emergency by way of determining the water quality and the condition of the water distribution infrastructure.

Information Analysis

The City has sought partners to assist in the analysis and attenuation of complex data. Wayne State University's center for Urban Studies has agreed to assist the City in its efforts to document and track lead water lines, water test results, and filter distribution with geographic information system (GIS) technology. This allows for easily updateable, digestible information to be presented to officials.

Assessment of Impacts

The City will need assistance in determining the total cost of damage done to the public health and infrastructure. As of now, only portions of this damage are visible.

PSI is providing some assistance by excavating 150 residential water lines to verify that they are comprised of lead. This is an initial step, but not enough. More resources will be needed to continue this process.

Continuous Situational Awareness

It is important that the Emergency Management Team receive continuous information regarding water testing results, lead water line numbers, and filter distribution information in order to gain a realistic and current perspective. Much of his information is currently available on the City's website (cityofflint.com) and more is added each week by the PIO team.

Actions taken in Response to the Emergency

Activation of the Incident Management Team

Upon the declaration of Emergency by Mayor Weaver, the Support Emergency Operations Plan (SEOP) was activated. The SEOP calls upon the Incident Management Team to generate the Incident Action Plan (IAP. Each member of this team serves a specific function as it relates to addressing the causes and effects of the emergency. The Emergency Management Team roster can be found in the SEOP on page 3, with a list of alternates on page 4 in case the need for succession arises.

Emergency Operations Center

The Emergency Operations Center (EOC) must be activated upon the declaration of a State of Emergency by the Mayor. This center is required by the SEOP and serves as a nerve center for the Incident Management Team. Here, emergency relief efforts are coordinated by key members of the Incident Management Team. In this case, these relief efforts consist of the distribution of water filters at

City Hall and community events, the distribution of bottled water throughout the city in conjunction with the efforts of community partners, and assisting with the circulation of water testing kits throughout the community. The EOC will also be monitoring and managing the inventory of relief supplies, such as water filters and bottled water.

According to the SEOP, the EOC must establish an incident tracking system. This system will serve as a work plan for the management of the emergency. In addition, it is essential that the IMT record water testing results, lead water line location information, and information about the distribution of water filters and bottled water all in one place so that information is readily available for the Incident Management Team. This information will also be sent out to the public and media in the form of daily regular updates by the City's PIO.

Communication

The EOC maintains a telephone system that exists to intake questions about relief efforts and to organize relief logistics. It is open from 8am to 5pm, Monday through Friday. A voicemail system and eventual email system will exist to handle requests and inquiries that occur outside of the normal operating hours. This system will be constructed by the City's IS department.

Public Awareness and Education

1. **Emergency Alerts and Updates:**
   The City's Public Information Officer will make available information as it relates to the emergency in the form of press releases, emails, and physical documents. Daily updates containing information on the distribution of water filters, bottled water, water testing, blood lead testing, and other relief efforts will be available on the City's website for the public to view. Information will be available at City Hall for residents.

2. **Joint Information Center:**
   The City's PIO will establish a joint Information Center that is organized to coordinate the efforts of multiple agencies to communicate with the public. This includes the circulation of joint press releases, public health information, educational materials, and updates relating to the State of Emergency. This committee is comprised of public information officers and public relations personnel to coordinate efforts to keep the public updated and informed. Regular updates to the media regarding events and progress will be made as news develops.

   The US EPA has offered assistance in the form of Public Information support. Additional support in this area has been provided by the Michigan State Police.

3. **Education:**
   Many government agencies and philanthropic organizations are already distributing information regarding the effects of lead on public health. It is important that the City assist in these efforts so vital information and knowledge is presented to all members of the community. The goal is to continue to eliminate misunderstandings and incorrect information as it relates to reducing lead in drinking water, pursuing medical help, and maintaining a healthy diet to reduce lead absorption in the body. Lead education is currently being performed by the Genesee County Health Department, the Michigan Department of Health and Human Services and Medical community at-large.

Assessment of Social Needs

In order to effectively and equitably provide immediate relief to Flint water customers, the City must take into account many of the socio-economic needs and limitations of the community. Some residents cannot get to City Hall for a water filter. Some residents do not have internet access. Literacy or a language barrier may also pose significant obstacles to the effective distribution of educational information and relief to those in need. These will be continuing challenges facing the community. At present these are the resources the City has available to mitigate some of those challenges.

Logistics

Logistics are being coordinated by the City Emergency Management Team's City's *Chief Logistics Officer*, who is the City Administrator. The CLO is responsible for the coordination, procurement, and transportation of goods and services, which is essential for effective implementation of the response plan.

Fixed Distribution Points

There are several locations throughout the city where residents may acquire a water filter. These locations are:

Flint City Hall
1101 South Saginaw, Flint MI 48502

Genesee County Community Action Resource Department (GCCARD)
601 North Saginaw, Flint MI 48502
and
2727 Lippencott Blvd, Flint MI 48507

Michigan Department of Health and Human Services
4809 Clio Road, Flint MI 48504
and
125 E. Union Street, Flint, MI 48502

Activation of Ward Distribution Centers

Each of the nine wards will have activated distribution centers that are primarily managed by City Council Members or their designees.

Flint City Council – Water Distribution Sites

WARD	COUNCILPERSON	LOCATION	ADDRESS
1	Eric Mays	Hasselbring Senior Center	1002 W. Home Avenue
2	Jackie Poplar	Joy Tabernacle Church	2505 N. Chevrolet Avenue
3	Kerry Nelson	Antioch Baptist Church	1083 E. Stewart Avenue
4	Joshua Freeman	Flint Fire Station No. 5	3402 Western Road
5	Wantwaz Davis	Doyle/Ryder Elementary School	1040 N. Saginaw Street
6	Herbert Winfrey	New Community Baptist Church	1375 Lavender Avenue
7	Monica Galloway	Brennan Community Center	1301 Pingree Avenue
8	Vicki VanBuren	Flint Southwestern Academy	1420 W. 12th Street
9	Scott Kincaid	Dort Mall Police Service Station	3600 S. Dort Highway

Mobile Distribution Centers

With the help of transportation agencies, like the Metro Transit Authority (MTA), meals on wheels, and GCCARD, the city can help establish mobile distribution centers and delivery systems that can provide water filters, bottled water, and nutritious foods, among other types of relief accompanied by educational materials to neighborhoods and to homes of people who experience limited mobility.

- Mass Transportation Authority-MTA bus passes: Assisting residents with bus passes to improve their mobility will increase their chances of receiving help. Transportation services will also improve residents' access to medical care.
- MTA-Your Ride mobile distribution:
    - Estimated Costs: $25 per hour to deliver water and filters to homes throughout the City.

Problem 1. Public Health Emergency

The first objective in addressing this emergency is reducing, and eventually eliminating, the danger to public health. As City water coming out of faucets continue to contain lead, and copper and other

harmful contaminants exceeding government guidelines and regulations, it poses a risk to the people of our community. Preventative measures must be taken to avoid the effects of toxicosis that are difficult if not impossible to completely reverse.

As far as preventative measures are concerned, education, water filters, and bottled water must be provided to every household in the City in order to reduce the chances of lead exposure, especially to our most vulnerable members of the community. If lead exposure has occurred, resulting in elevated blood lead levels, immediate and sustained medical attention must be available to those affected. Health services must be expanded in the area to accommodate increased numbers of case loads and specialized care regarding lead poisoning and its effects.

Immediate Relief for Public Health:

1. Prevention: Education, water filters and replacement cartridges, free water testing, and bottled water must be available to everyone.
2. Access to nutritious food that reduces the risks of lead absorption by the body. The City can coordinate activities with the County Health Department

Long Term Solutions: Maintaining Public Health and Coping with Lead Exposure

1. Work closely with the Genesee County Health Department and Michigan Department of Health and Human Services in order to provide sustainable care and monitoring of children exposed to lead. This care must be available for them for several years-preferably several decades.
2. Support and education for primary care providers regarding aggressive long-term neurodevelopmental screening and testing.
3. Improved access to developmental and behavioral (DBP) specialists, pediatric psychologists, pediatric psychiatrists.
    a. Pre-emptive referral to mental health/ toxic stress screenings.
    b. Support capacity building and or incentivize recruitment to allow Genesee health system (CMH) to build this capacity which is currently needed and lacking.
4. Increase recognition and education regarding trauma informed care, social determinants of health (SDOH).
5. Expand State funded Genesee Health System (CMH) services.
    a. Infant mental health (30 day capacity)
    b. Child case management
    c. Home based services
    d. Trauma informed care- trauma focused CBT

Problem 2. Lead Contamination in the Water

Immediate Relief:

1. Education, water filters and replacement cartridges, free water testing for water customers, and bottled water must be available to everyone. Water filters can be obtained at any of the fixed distribution points throughout the City.
2. Identification and verification of lead water service lines throughout the city- both public and private.
3. Assistance to identify lead pipes within buildings and homes.

Distribution of Bottled Water:
At this point, we are directing all offers for donations to the Food Bank of Eastern Michigan. It is imperative that water be accessible to all members of the community through a variety of distribution channels. These channels are explained in the Logistics Section of this plan.

Distribution of Test Bottles:
Water testing kits can be picked up at City Hall with instructions. Test results are posted on the City's website to raise public awareness and encourage more participation.

Long term Solutions: Capital Improvements Needs
The distribution of filters, water, and food to counter the effects of lead are essential response efforts to keep people safe. However, long term solutions are required to keep people healthy, to eliminate lead from the public and private water distribution system distribution, and to provide affordable clean water. Our public infrastructure and utilities must be reliable, sustainable, and equitable in order for this community to rebound after this emergency. The following long term solutions must be implemented in order to set the City of Flint on a course for recovery. These solutions come at a heavy cost for a City that is currently in receivership. The City has experienced financial distress due to this Emergency, in addition to a two million dollar loss from switching back to DWSD. The City has diligently applied for Fiscally Distressed Cities, Villages, and Townships, Grant in order to supplement funding for capital improvement projects. It is essential that these grants be awarded in order to achieve long term solutions.

1. COMPLETE **Transition to a Temporary Safe Water Source until the Completion of KWA:**
   This has already occurred. On October 16, 2015, Flint returned to receiving its water from DWSD on a 9 month agreement. This agreement will expire in June 2016, when the KWA is projected to be complete. The City had to pay $2 million out of its general fund to make this switch.

2. IN PROGRESS **Additional Corrosion Control added to the Water System:**

This is already occurring. In early December, 2015, Flint began to add additional corrosion control to the water coming in from DWSD in attempts to rebuild the protective scale inside its pipes. This is estimated to reduce lead levels in two to six months.

3. **Faucet Replacement:**
   Replacement of Water faucets, and drinking fountains in the school system. It has been determined after state inspections that many sources of lead contamination in the School System's water were the faucets themselves. These faucets need to be replaced.

4. **Water Line Replacement:**
   Water Line Replacement to reduce antiquated infrastructure and lead service lines. These lines must be identified, verified, and replaced. Residents who are facing financial hardships must have access to assistance to cover the costs of these replacements through access to grants and (forgivable) loans made available through State and Federal agencies. The corrosion damage to public and private lines that Flint River water caused is still being determined.
   - Replacement of an estimated fifteen thousand (15,000) lead service lines at an estimated cost of three thousand dollars ($3,000) per line. Total costs forty –five million dollars ($45,000,000). This project is estimated to be one of the most cost-intensive endeavors related to ameliorating water contaminants.

5. **Reimbursement of Critical Expenditures:**
   Seeking reimbursement of two million dollar cost of returning to DWSD and forgiveness of Water Revolving Loan Debt from the State of Michigan.

6. **KWA Capital Improvements**: The City has reconnected to Detroit temporarily until a water line from Port Huron is developed. The new water line known as the KWA pipeline or Karegnondi Water Authority is expected to bring water to the City from Lake Huron by July. The current cost agreement between Flint and DWSD is for nine months, therefore it is imperative that KWA be completed as soon as possible. Assistance relating to capital improvements to expedite this process will help to achieve long term goals.

KWA Capital Improvements:	**Estimated Costs:**
a. Transfer Station to Dort Reservoir	*$4,500,000*
b. Raw water line to pump station #4	*$636,000*
c. Phosphoric acid feed system	*$186,000*
d. Alum Feed system	*$40,000*
e. Post filtration system	*$387,289*

f.	*SCADA Upgrades*	*$424,000*
g.	*Sewer Relining*	*$100,000*
	Total	***$6,273,289***

Ancillary Considerations: Public Safety during an Emergency

During a time of emergency public safety agencies need to be prepared to respond to threats to public safety and critical infrastructure. The City is facing a man-made emergency that is threatening the public health. Resentment and hostility toward local institutions and municipal government is at a significant level.

Critical infrastructure should be safeguarded if the need arises. This includes increasing security at City Hall to reduce potential for public safety risks. In the case of credible threats to public infrastructure, it may be required to hire private security company for first line of defense. Private Security is lower cost, thereby making it the first option. The minimum response is acted upon first, elevating only if the need arises. Credible or imminent threats of damage or destruction to critical infrastructure requires an elevated response. Such needs may require over-time police officers to address critical situations. Mutual aid from surrounding communities can be requested if Flint public safety is overextended.

Implementation:

Community Partners

Financial limitations of the city persist while it confronts this emergency. Many community partners have offered their assistance to perform various needed functions. The city is heavily reliant on the assistance that government agencies and nonprofit organizations have provided.

The Mott Foundation

The Mott Foundation has provided financial assistance, especially in their generous contribution of $4 million. In addition, the Mott Foundation has recently pledged an additional

United Way

The Genesee County United Way has provided significant financial assistance in the way of purchasing and helping to distribute water filters since the public health emergency began on October 1st, 2015.

Genesee County Community Action Resources Department (GCCARD)

GCCARD is organized to fight poverty and has been a primary partner in the distribution of water filters. It has also regularly supported the city with the logistics and availability of water filters at City Hall.

Genesee County Health Department

Has provided educational information to Flint Water customers

Genesee County Board of Commissioners

The Board of Commissioners have pledged their support to help Flint seek solutions to this crisis. The Board has already assisted in making health and nutrition information available to the public.

Assistance from Wayne State University

Wayne State University's Center for Urban Studies will be providing technical GIS support to assist in the documentation of emergency relief efforts.

The US Environmental Protection Agency

Region 5 EPA has offered assistance with Public Information distribution during the emergency.

Outside Help is still needed…

The City of Flint is forever thankful to our community partners who have given so much to help so many people. However the magnitude of this emergency calls for more resources that are beyond the capacity of the combined local organizations and government agencies. Long term solutions will require a heavy investment in health care and capital improvement projects to upgrade the city's antiquated water distribution system.

- Help with Immediate Relief in terms of assuring allocative efficiency. Distribution should be equitable- assistance from other governments required to assure this.
- Reaching communities for the distribution of water filters, water, and educational materials.
- Help with Water Testing to increase participation and lead education.
- Increasing the rate of water testing
- Assistance is required to fund essential capital improvement projects to guarantee clean and safe water.

From: Creagh, Keith (DNR)
Sent: Wednesday, December 30, 2015 8:15 PM
To: Baird, Richard (GOV)
Cc: Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Kelenske, Chris (MSP); Holland, Meegan (GOV); Murray, David (GOV); Redford, James (GOV); Becker, Timothy (DHHS); Roberts, John (DTMB); Etue, Kriste (MSP); Lyon, Nick (DHHS)
Subject: Re: Attorney Client Work Product (Draft), Privileged and Confidential

Thanks for the opportunity to comment. I agree with Jim that it would be good to have a local entity at least be a co vice chair if possible. I would question statement of need wording and ask that it be reflect of the need for additional resources, integrated approach, additional professional expertise, enhanced communication,coordination and connection...you get the gist. Rich I would be happy to discuss at your convenience if appropriate. This would appear consistent with the request from Flint. Also in my limited (and I stress limited) discussions today I asked what success looked like and it included many of the suggested components. The individual I was speaking with wanted to further explore:
Increased funding/focus for Head start to get ahead of the curve
School nutrition and distribution systems (year around)
Fresh produce/local foods

Individual health screening
Infrastructure improvements

I know most if not all are identified in the outline but might want to further explain the nutrition component if the Docs in the group say it might be beneficial for those involved.

Thanks again-Keith

Sent from my iPad

On Dec 30, 2015, at 6:57 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:

> Team:
>
> Today Harvey and I met with the Flint Water Task Force. It was a good meeting. People were pleased with the G's statement from the prior day. Captain Kelenske joined us and we had a very good discussion about moving forward with the creation of the Flint Water Crisis Agency Coordinating Committee (FIACC). Tim Becker and Captain Kelenske provided me with a fair amount of input. I also read the City of Flint Incident Action Plan for a State of Emergency which Chris received today (enclosed for those who wish to read it as well). I have distilled all of this into a two page plan that I want your edits and comments on and a one page organizational chart (now presented in the "governor's colors" according to our fine people in Communications). Spoiler alert—I made Captain Kelenske Vice Chair of the whole shebang (with the Colonel's blessing) so Harvey wouldn't get lonely.
>
> Here is my ask of you:
>
> 1) Within 24 (sooner if you can) hours give me your comments and input
> 2) Tomorrow I will turn around a final document for Jarrod to review with the Governor either New Year's Day or Saturday
> 3) Ideally, Governor will approve Harvey sending it to Mayor Weaver Saturday (Sunday latest)

4) Mayor needs to know that this is what the Governor wishes to discuss at the meeting January 7 along with financial resources that we still need some estimates on cost from DHHS for
5) Meegan and Dave need to noodle how best to get out front with this and change the narrative focus on Monday's Genesee County declaration of emergency

I know we are all working way too hard for what should be a rest and recharge period but I do appreciate everyone's efforts and I know the Boss really does as well.

Regards,

Rich

<A Proposal to Create the Flint Water Inter.docx>

<IA Coord Com Org Chart.jpg>

<IAP Flint Water 2015-12-29.pdf>

From: Kelenske, Chris (MSP)
Sent: Wednesday, December 30, 2015 8:38 PM
To: Creagh, Keith (DNR); Baird, Richard (GOV)
Cc: Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Holland, Meegan (GOV); Murray, David (GOV); Redford, James (GOV); Becker, Timothy (DHHS); Roberts, John (DTMB); Etue, Kriste (MSP); Lyon, Nick (DHHS)
Subject: RE: Attorney Client Work Product (Draft), Privileged and Confidential

The concern I have with having a local as a vice chair is that this is being pushed to the state level to fix. Similar to an emergency that reaches the state level, we need to have one lead to move this forward and that should be at the state level. I have run numerous state and federal disasters in this manner. The locals are pushing the request for resources to the state so this is them saying they cannot do anything more and handing this off to the state. This is one of the areas I mentioned that needs to stay consistent with the Emergency Management Act and how we manage incidents.

Locals still have a voice in this (one way is that they are generating the requests for resources to assist).

Chris

From: Creagh, Keith (DNR)
Sent: Wednesday, December 30, 2015 8:15 PM
To: Baird, Richard (GOV)
Cc: Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Kelenske, Chris (MSP); Holland, Meegan (GOV); Murray, David (GOV); Redford, James (GOV); Becker, Timothy (DHHS); Roberts, John (DTMB); Etue, Kriste (MSP); Lyon, Nick (DHHS)
Subject: Re: Attorney Client Work Product (Draft), Privileged and Confidential

Thanks for the opportunity to comment. I agree with Jim that it would be good to have a local entity at least be a co vice chair if possible. I would question statement of need wording and ask that it be reflect of the need for additional resources, integrated approach, additional professional expertise, enhanced communication,coordination and connection...you get the gist. Rich I would be happy to discuss at your convenience if appropriate. This would appear consistent with the request from Flint. Also in my limited (and I stress limited) discussions today I asked what success looked like and it included many of the suggested components. The individual I was speaking with wanted to further explore:
Increased funding/focus for Head start to get ahead of the curve
School nutrition and distribution systems (year around)
Fresh produce/local foods

Individual health screening
Infrastructure improvements

I know most if not all are identified in the outline but might want to further explain the nutrition component if the Docs in the group say it might be beneficial for those involved.

Thanks again-Keith

Sent from my iPad

On Dec 30, 2015, at 6:57 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:

Team:

Today Harvey and I met with the Flint Water Task Force. It was a good meeting. People were pleased with the G's statement from the prior day. Captain Kelenske joined us and we had a very good discussion about moving forward with the creation of the Flint Water Crisis Agency Coordinating Committee (FIACC). Tim Becker and Captain Kelenske provided me with a fair amount of input. I also read the City of Flint Incident Action Plan for a State of Emergency which Chris received today (enclosed for those who wish to read it as well). I have distilled all of this into a two page plan that I want your edits and comments on and a one page organizational chart (now presented in the "governor's colors" according to our fine people in Communications). Spoiler alert—I made Captain Kelenske Vice Chair of the whole shebang (with the Colonel's blessing) so Harvey wouldn't get lonely.

Here is my ask of you:

1) Within 24 (sooner if you can) hours give me your comments and input
2) Tomorrow I will turn around a final document for Jarrod to review with the Governor either New Year's Day or Saturday
3) Ideally, Governor will approve Harvey sending it to Mayor Weaver Saturday (Sunday latest)
4) Mayor needs to know that this is what the Governor wishes to discuss at the meeting January 7 along with financial resources that we still need some estimates on cost from DHHS for
5) Meegan and Dave need to noodle how best to get out front with this and change the narrative focus on Monday's Genesee County declaration of emergency

I know we are all working way too hard for what should be a rest and recharge period but I do appreciate everyone's efforts and I know the Boss really does as well.

Regards,

Rich

<A Proposal to Create the Flint Water Inter.docx>

<IA Coord Com Org Chart.jpg>

<IAP Flint Water 2015-12-29.pdf>

From: Clement, Elizabeth (GOV)
Sent: Wednesday, December 30, 2015 8:51 PM
To: Kelenske, Chris (MSP)
Cc: Creagh, Keith (DNR); Baird, Richard (GOV); Agen, Jarrod (GOV); Hollins, Harvey (GOV); Holland, Meegan (GOV); Murray, David (GOV); Redford, James (GOV); Becker, Timothy (DHHS); Roberts, John (DTMB); Etue, Kriste (MSP); Lyon, Nick (DHHS)
Subject: Re: Attorney Client Work Product (Draft), Privileged and Confidential

I agree with Chris. This structure has worked very well with state/federal disasters we have managed over the last few years.

Sent from my iPhone

On Dec 30, 2015, at 8:38 PM, Kelenske, Chris (MSP) <KelenskeC@michigan.gov> wrote:

> The concern I have with having a local as a vice chair is that this is being pushed to the state level to fix. Similar to an emergency that reaches the state level, we need to have one lead to move this forward and that should be at the state level. I have run numerous state and federal disasters in this manner. The locals are pushing the request for resources to the state so this is them saying they cannot do anything more and handing this off to the state. This is one of the areas I mentioned that needs to stay consistent with the Emergency Management Act and how we manage incidents.
>
> Locals still have a voice in this (one way is that they are generating the requests for resources to assist).
>
> Chris
>
> **From:** Creagh, Keith (DNR)
> **Sent:** Wednesday, December 30, 2015 8:15 PM
> **To:** Baird, Richard (GOV)
> **Cc:** Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Kelenske, Chris (MSP); Holland, Meegan (GOV); Murray, David (GOV); Redford, James (GOV); Becker, Timothy (DHHS); Roberts, John (DTMB); Etue, Kriste (MSP); Lyon, Nick (DHHS)
> **Subject:** Re: Attorney Client Work Product (Draft), Privileged and Confidential
>
> Thanks for the opportunity to comment. I agree with Jim that it would be good to have a local entity at least be a co vice chair if possible. I would question statement of need wording and ask that it be reflect of the need for additional resources, integrated approach, additional professional expertise, enhanced communication,coordination and connection...you get the gist. Rich I would be happy to discuss at your convenience if appropriate. This would appear consistent with the request from Flint. Also in my limited (and I stress limited) discussions today I asked what success looked like and it included many of the suggested components. The individual I was speaking with wanted to further explore:
> Increased funding/focus for Head start to get ahead of the curve
> School nutrition and distribution systems (year around)
> Fresh produce/local foods
>
> Individual health screening
> Infrastructure improvements

I know most if not all are identified in the outline but might want to further explain the nutrition component if the Docs in the group say it might be beneficial for those involved.

Thanks again-Keith

Sent from my iPad

On Dec 30, 2015, at 6:57 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:

> Team:
>
> Today Harvey and I met with the Flint Water Task Force. It was a good meeting. People were pleased with the G's statement from the prior day. Captain Kelenske joined us and we had a very good discussion about moving forward with the creation of the Flint Water Crisis Agency Coordinating Committee (FIACC). Tim Becker and Captain Kelenske provided me with a fair amount of input. I also read the City of Flint Incident Action Plan for a State of Emergency which Chris received today (enclosed for those who wish to read it as well). I have distilled all of this into a two page plan that I want your edits and comments on and a one page organizational chart (now presented in the "governor's colors" according to our fine people in Communications). Spoiler alert—I made Captain Kelenske Vice Chair of the whole shebang (with the Colonel's blessing) so Harvey wouldn't get lonely.
>
> Here is my ask of you:
>
> 1) Within 24 (sooner if you can) hours give me your comments and input
> 2) Tomorrow I will turn around a final document for Jarrod to review with the Governor either New Year's Day or Saturday
> 3) Ideally, Governor will approve Harvey sending it to Mayor Weaver Saturday (Sunday latest)
> 4) Mayor needs to know that this is what the Governor wishes to discuss at the meeting January 7 along with financial resources that we still need some estimates on cost from DHHS for
> 5) Meegan and Dave need to noodle how best to get out front with this and change the narrative focus on Monday's Genesee County declaration of emergency
>
> I know we are all working way too hard for what should be a rest and recharge period but I do appreciate everyone's efforts and I know the Boss really does as well.
>
> Regards,
>
> Rich
>
> <A Proposal to Create the Flint Water Inter.docx>
>
> <IA Coord Com Org Chart.jpg>
>
> <IAP Flint Water 2015-12-29.pdf>

From: Hollins, Harvey (GOV)
Sent: Wednesday, December 30, 2015 8:51 PM
To: Creagh, Keith (DNR)
Cc: Baird, Richard (GOV); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Kelenske, Chris (MSP); Holland, Meegan (GOV); Murray, David (GOV); Redford, James (GOV); Becker, Timothy (DHHS); Roberts, John (DTMB); Etue, Kriste (MSP); Lyon, Nick (DHHS)
Subject: Re: Attorney Client Work Product (Draft), Privileged and Confidential

I agree with Jim's observations well. We need both a city and county representative to serve. We'll have to work on the city piece because other than the Mayor or ,Brian Larkin, there's not one person I'd recommend.

Best,
Harvey

On Dec 30, 2015, at 8:15 PM, Creagh, Keith (DNR) <creaghk@michigan.gov> wrote:

> Thanks for the opportunity to comment. I agree with Jim that it would be good to have a local entity at least be a co vice chair if possible. I would question statement of need wording and ask that it be reflect of the need for additional resources, integrated approach, additional professional expertise, enhanced communication,coordination and connection...you get the gist. Rich I would be happy to discuss at your convenience if appropriate. This would appear consistent with the request from Flint. Also in my limited (and I stress limited) discussions today I asked what success looked like and it included many of the suggested components. The individual I was speaking with wanted to further explore:
> Increased funding/focus for Head start to get ahead of the curve
> School nutrition and distribution systems (year around)
> Fresh produce/local foods
>
> Individual health screening
> Infrastructure improvements
>
> I know most if not all are identified in the outline but might want to further explain the nutrition component if the Docs in the group say it might be beneficial for those involved.
>
> Thanks again-Keith
>
> Sent from my iPad
>
> On Dec 30, 2015, at 6:57 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:
>
> > Team:
> >
> > Today Harvey and I met with the Flint Water Task Force. It was a good meeting. People were pleased with the G's statement from the prior day. Captain Kelenske joined us and we had a very good discussion about moving forward with the creation of the Flint Water Crisis Agency Coordinating Committee (FIACC). Tim Becker and Captain Kelenske provided me with a fair amount of input. I also read the City of Flint Incident Action Plan for a State of Emergency which Chris received today (enclosed for those who wish to

read it as well). I have distilled all of this into a two page plan that I want your edits and comments on and a one page organizational chart (now presented in the "governor's colors" according to our fine people in Communications). Spoiler alert—I made Captain Kelenske Vice Chair of the whole shebang (with the Colonel's blessing) so Harvey wouldn't get lonely.

Here is my ask of you:

1) Within 24 (sooner if you can) hours give me your comments and input
2) Tomorrow I will turn around a final document for Jarrod to review with the Governor either New Year's Day or Saturday
3) Ideally, Governor will approve Harvey sending it to Mayor Weaver Saturday (Sunday latest)
4) Mayor needs to know that this is what the Governor wishes to discuss at the meeting January 7 along with financial resources that we still need some estimates on cost from DHHS for
5) Meegan and Dave need to noodle how best to get out front with this and change the narrative focus on Monday's Genesee County declaration of emergency

I know we are all working way too hard for what should be a rest and recharge period but I do appreciate everyone's efforts and I know the Boss really does as well.

Regards,

Rich

<A Proposal to Create the Flint Water Inter.docx>

<IA Coord Com Org Chart.jpg>

<IAP Flint Water 2015-12-29.pdf>

From: Holland, Meegan (GOV)
Sent: Wednesday, December 30, 2015 9:01 PM
To: Baird, Richard (GOV); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Kelenske, Chris (MSP); Murray, David (GOV); Redford, James (GOV); Becker, Timothy (DHHS); Creagh, Keith (DNR); Roberts, John (DTMB)
Cc: Etue, Kriste (MSP); Lyon, Nick (DHHS)
Subject: RE: Attorney Client Work Product (Draft), Privileged and Confidential

I offer a few thoughts, and some of these may be incredibly naïve, but we seem to be in a brainstorming mode:

- Should we include MSHDA in the mix of departments involved in this? They administer the Community Development Block Grant program and this may call for some of that money.
- It might be prudent to reach out to Sen. Ananich, Rep. Neeley and U.S. Rep. Dan Kildee to see if they would like representatives from their offices on any of these committees.
- We still need to convey better the extent of the problem. So maybe this is a communications issue more than anything else, because I do know testing is going on. I don't know HOW it's going on, so I offer these suggestions, realizing they may already be happening or are totally unrealistic:

The goal: Assess the extent of the elevated blood lead levels – the number of those affected and the degree to which they're affected

- Get as many people in the affected zip codes tested as possible – can the Red Cross or some other agency with a bus or mobile unit set up for folks to give blood convert over to blood level testing and go into neighborhoods that have low testing rates?
- A public health friend of mine said that Genesee County Health workers are stressed to the max. Can we deploy appropriate personnel from other county health agencies to help with inspecting homes for possible other causes? In other words, it won't do any good to invest more in water infrastructure if we're finding window sills with teeth marks. I say this NOT to downplay the role that water lead levels may have played. But can we get Habitat for Humanity, for example, to do a massive volunteer effort to eradicate lead paint in homes … or is that beyond their expertise?
- Gather experts to assess exactly how extensive the problem is and potential causes. And then convey this in a much more accessible ways. If you want blood level data, you have to scroll down on the DHHS web site, find the headline and then read a long press release. Maybe we're conveying this information better on the ground, but if not, we need to communicate conclusive findings in multiple ways– graphics, video, informational photo galleries and maybe even a "test" that residents can take to see if their home is at risk in other ways. I know that sounds awfully MLive-ish, but it can be effective.

From: Baird, Richard (GOV)
Sent: Wednesday, December 30, 2015 6:57 PM
To: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Clement, Elizabeth (GOV) <clementse@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Kelenske, Chris (MSP) <KelenskeC@michigan.gov>; Holland, Meegan (GOV) <HollandM2@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; Redford, James (GOV) <RedfordJ@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Creagh, Keith (DNR) <creaghk@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>
Cc: Etue, Kriste (MSP) <EtueK@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>
Subject: Attorney Client Work Product (Draft), Privileged and Confidential

Team:

Today Harvey and I met with the Flint Water Task Force. It was a good meeting. People were pleased with the G's statement from the prior day. Captain Kelenske joined us and we had a very good discussion about moving forward with the creation of the Flint Water Crisis Agency Coordinating Committee (FIACC). Tim Becker and Captain Kelenske provided me with a fair amount of input. I also read the City of Flint Incident Action Plan for a State of Emergency which Chris received today (enclosed for those who wish to read it as well). I have distilled all of this into a two page plan that I want your edits and comments on and a one page organizational chart (now presented in the "governor's colors" according to our fine people in Communications). Spoiler alert—I made Captain Kelenske Vice Chair of the whole shebang (with the Colonel's blessing) so Harvey wouldn't get lonely.

Here is my ask of you:

1) Within 24 (sooner if you can) hours give me your comments and input
2) Tomorrow I will turn around a final document for Jarrod to review with the Governor either New Year's Day or Saturday
3) Ideally, Governor will approve Harvey sending it to Mayor Weaver Saturday (Sunday latest)
4) Mayor needs to know that this is what the Governor wishes to discuss at the meeting January 7 along with financial resources that we still need some estimates on cost from DHHS for
5) Meegan and Dave need to noodle how best to get out front with this and change the narrative focus on Monday's Genesee County declaration of emergency

I know we are all working way too hard for what should be a rest and recharge period but I do appreciate everyone's efforts and I know the Boss really does as well.

Regards,

Rich

From: Hollins, Harvey (GOV)
Sent: Wednesday, December 30, 2015 9:02 PM
To: Kelenske, Chris (MSP)
Cc: Creagh, Keith (DNR); Baird, Richard (GOV); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Holland, Meegan (GOV); Murray, David (GOV); Redford, James (GOV); Becker, Timothy (DHHS); Roberts, John (DTMB); Etue, Kriste (MSP); Lyon, Nick (DHHS)
Subject: Re: Attorney Client Work Product (Draft), Privileged and Confidential

Then they could be on the same line as the SMEs or added as a dotted horizontal line off the top. But the FWATF clearly suggested local involvement.

Best,
Harvey

On Dec 30, 2015, at 8:38 PM, Kelenske, Chris (MSP) <KelenskeC@michigan.gov> wrote:

> The concern I have with having a local as a vice chair is that this is being pushed to the state level to fix. Similar to an emergency that reaches the state level, we need to have one lead to move this forward and that should be at the state level. I have run numerous state and federal disasters in this manner. The locals are pushing the request for resources to the state so this is them saying they cannot do anything more and handing this off to the state. This is one of the areas I mentioned that needs to stay consistent with the Emergency Management Act and how we manage incidents.
>
> Locals still have a voice in this (one way is that they are generating the requests for resources to assist).
>
> Chris
>
> **From:** Creagh, Keith (DNR)
> **Sent:** Wednesday, December 30, 2015 8:15 PM
> **To:** Baird, Richard (GOV)
> **Cc:** Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Kelenske, Chris (MSP); Holland, Meegan (GOV); Murray, David (GOV); Redford, James (GOV); Becker, Timothy (DHHS); Roberts, John (DTMB); Etue, Kriste (MSP); Lyon, Nick (DHHS)
> **Subject:** Re: Attorney Client Work Product (Draft), Privileged and Confidential
>
> Thanks for the opportunity to comment. I agree with Jim that it would be good to have a local entity at least be a co vice chair if possible. I would question statement of need wording and ask that it be reflect of the need for additional resources, integrated approach, additional professional expertise, enhanced communication,coordination and connection...you get the gist. Rich I would be happy to discuss at your convenience if appropriate. This would appear consistent with the request from Flint. Also in my limited (and I stress limited) discussions today I asked what success looked like and it included many of the suggested components. The individual I was speaking with wanted to further explore:
> Increased funding/focus for Head start to get ahead of the curve
> School nutrition and distribution systems (year around)
> Fresh produce/local foods
>
> Individual health screening
> Infrastructure improvements

I know most if not all are identified in the outline but might want to further explain the nutrition component if the Docs in the group say it might be beneficial for those involved.

Thanks again-Keith

Sent from my iPad

On Dec 30, 2015, at 6:57 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:

> Team:
>
> Today Harvey and I met with the Flint Water Task Force. It was a good meeting. People were pleased with the G's statement from the prior day. Captain Kelenske joined us and we had a very good discussion about moving forward with the creation of the Flint Water Crisis Agency Coordinating Committee (FIACC). Tim Becker and Captain Kelenske provided me with a fair amount of input. I also read the City of Flint Incident Action Plan for a State of Emergency which Chris received today (enclosed for those who wish to read it as well). I have distilled all of this into a two page plan that I want your edits and comments on and a one page organizational chart (now presented in the "governor's colors" according to our fine people in Communications). Spoiler alert—I made Captain Kelenske Vice Chair of the whole shebang (with the Colonel's blessing) so Harvey wouldn't get lonely.
>
> Here is my ask of you:
>
> 1) Within 24 (sooner if you can) hours give me your comments and input
> 2) Tomorrow I will turn around a final document for Jarrod to review with the Governor either New Year's Day or Saturday
> 3) Ideally, Governor will approve Harvey sending it to Mayor Weaver Saturday (Sunday latest)
> 4) Mayor needs to know that this is what the Governor wishes to discuss at the meeting January 7 along with financial resources that we still need some estimates on cost from DHHS for
> 5) Meegan and Dave need to noodle how best to get out front with this and change the narrative focus on Monday's Genesee County declaration of emergency
>
> I know we are all working way too hard for what should be a rest and recharge period but I do appreciate everyone's efforts and I know the Boss really does as well.
>
> Regards,
>
> Rich
>
> <A Proposal to Create the Flint Water Inter.docx>
>
> <IA Coord Com Org Chart.jpg>
>
> <IAP Flint Water 2015-12-29.pdf>

From: Becker, Timothy (DHHS)
Sent: Wednesday, December 30, 2015 11:35 PM
To: Baird, Richard (GOV); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Kelenske, Chris (MSP); Holland, Meegan (GOV); Murray, David (GOV); Redford, James (GOV); Creagh, Keith (DNR); Roberts, John (DTMB)
Cc: Etue, Kriste (MSP); Lyon, Nick (DHHS)
Subject: RE: Attorney Client Work Product (Draft), Privileged and Confidential
Attachments: FY16 and FY17 Flint supplemental.xls

Attached is a supplemental MDHHS advanced to SBO today (John: Farah sent to Nancy, Harkins, and team). This addresses surveillance, case management, and lead abatement in homes including pipes. It does not yet establish the long-term "health fund" some have advocated for. On the proposal document I concur with Director Creagh's and Mr. Redford's suggestions on a slight re-wording of statement of need. I am comfortable with the general framework of the group. I agree with Captain Kelenske that the state needs to lead the group. I think with the Executive and MSP chairing the state is providing the requested prospective leadership. We have built in extensive participation from city, county, and subject matter experts and we will be completely transparent with all partners.

From: Baird, Richard (GOV)
Sent: Wednesday, December 30, 2015 6:57 PM
To: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Kelenske, Chris (MSP) <KelenskeC@michigan.gov>; Holland, Meegan (GOV) <HollandM2@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; Redford, James (GOV) <RedfordJ@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Creagh, Keith (DNR) <creaghk@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>
Cc: Etue, Kriste (MSP) <EtueK@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>
Subject: Attorney Client Work Product (Draft), Privileged and Confidential

Team:

Today Harvey and I met with the Flint Water Task Force. It was a good meeting. People were pleased with the G's statement from the prior day. Captain Kelenske joined us and we had a very good discussion about moving forward with the creation of the Flint Water Crisis Agency Coordinating Committee (FIACC). Tim Becker and Captain Kelenske provided me with a fair amount of input. I also read the City of Flint Incident Action Plan for a State of Emergency which Chris received today (enclosed for those who wish to read it as well). I have distilled all of this into a two page plan that I want your edits and comments on and a one page organizational chart (now presented in the "governor's colors" according to our fine people in Communications). Spoiler alert—I made Captain Kelenske Vice Chair of the whole shebang (with the Colonel's blessing) so Harvey wouldn't get lonely.

Here is my ask of you:

1) Within 24 (sooner if you can) hours give me your comments and input
2) Tomorrow I will turn around a final document for Jarrod to review with the Governor either New Year's Day or Saturday
3) Ideally, Governor will approve Harvey sending it to Mayor Weaver Saturday (Sunday latest)
4) Mayor needs to know that this is what the Governor wishes to discuss at the meeting January 7 along with financial resources that we still need some estimates on cost from DHHS for
5) Meegan and Dave need to noodle how best to get out front with this and change the narrative focus on Monday's Genesee County declaration of emergency

I know we are all working way too hard for what should be a rest and recharge period but I do appreciate everyone's efforts and I know the Boss really does as well.

Regards,

Rich

From: Baird, Richard (GOV)
Sent: Thursday, December 31, 2015 3:37 PM
To: Agen, Jarrod (GOV)
Cc: Baird, Richard (GOV); Kelenske, Chris (MSP); Holland, Meegan (GOV); Creagh, Keith (DNR); Lyon, Nick (DHHS); Redford, James (GOV); Murray, David (GOV); Scott, Allison (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV)
Subject: Draft Documents Subject to Attorney Client Privilege (FIAAC)
Attachments: A Proposal to Create the Flint Water Inter [225139].docx; IA Coord Com Org Chart [233264].pptx; FY16 and FY17 Flint supplemental (233203).xls

Team:

I have received all of the input provided and thank you. The following highlights:

- The only two "enterprise wide" folks we have as Coordinators are Harvey Hollins and Chris Kalenske. I have changed their titles to reflect a coordination/facilitation role and not connote "We are in charge and to hell with everyone else". Therefore I have changed the org chart and created a "dotted line" depiction—and also added the Legislative body as they (or subsets) may have a role here as well.

- But make no mistake, we are going to be accountable whether we should be or not so we are not syndicated the leadership that comes with the coordinating roles. I rewrote certain pieces of the proposal to reflect our inclusion, equality and partnership. But make no mistake, Harvey and Chris are the guys who will make this coordination effort work and if either of them encounter resistance with any of our partners in this effort, I have pledged to have their backs using my persuasive charm and bankruptcy tested mediation skills…

- I did not bring in more departments at this time. That is not to say they would not be value add, but there is a difference between an emergency response and planning effort, and introducing some other ways to get help and support to Flint. We will do that too, but not at this time.

- I have attached Tim Becker's Supplemental Request. Note that even at $6 million over 2 years it does not include funding for the sort of long term monitoring of consequences of lead impact.

- Lastly I want people to know that we are committed to a spirit of inclusion, even with those who have been relentless in their attacks without offering any insights to solutionality. But some of these people have a stronger interest in advancing their own personal agenda and not devoting any real efforts to solving real problems. They will only be welcome if they decide to pursue the latter behavior vs. the former.

Unless someone thinks I really botched something up in the proposal, I would now ask Jarrod to give it final blessing and share with the Governor to get confirmation on the way forward.

Thanks everyone for a less than 24 hour turnaround and…

Go Green

Ok ok…Go Blue too…

HNY,

Rich

Sent from Mail for Windows 10

A Proposal to Create the Flint Water Inter-Agency Coordinating Committee (FIACC)

In collaboration with the Flint After-Action Task Force, MSP Captain Chris Kelenske, DHHS Chief Deputy Tim Becker and DHHS Director Nick Lyon, Harvey Hollins and Rich Baird are recommending the immediate creation of the above referenced entity, with its sustained role and responsibility enabled under the Governor's Executive Order.

Statement of Need

Due to a combination of resource constraints, inexperienced personnel, "silo" bureaucratic processes and the need to react to immediate problems, there is a lack of coordination, communication, and connected management amongst the departments and stakeholders who must work together to ensure Flint's return to clean, safe water and to coordinate mid and long term efforts to mitigate and address future health and behavioral consequences from lead ingestion. This group MUST be stood up regardless of whether (or when) the conditions required for a declaration of emergency are met by the City, County, State or Federal authorizers.

This inter agency group must fully engage with those we seek to serve. Equal partners. Equal leadership. Equal responsibility. Equal chance to be part of the solution to an important and not fully understood problem. We need our fellow citizens to be our partners in finding a solution, to feel they and their city and community leaders are not just part of the solution but are leading the solution with partners they can trust. This entity needs to be coordinated by State of Michigan leaders who represent statewide resources and constituencies and the citizens who comprise them. This coordinating body must include:

- The creation of a routine information process between all parties.
- Pursuit of other avenues of funding including federal grants and legislative appropriations.
- While the Emergency Management Act or the Stafford Disaster Relief and Emergency Assistance Act may be mechanisms to fix the issues in Flint, portions of the Emergency Management Act outlining management of events are applicable and should be implemented without delay (e.g. Local emergency operations plans/emergency operations guides as well as emergency operations support plans).

Action Plan and Establishing the FIACCC

It appears that a request for a Governor's declaration may be coming from Genesee County as quickly as January 4, 2016. The state's Emergency Coordinator (Capt. Kelenske) will evaluate the request and provide a recommendation whether to issue a declaration, following established protocol and due diligence. But immediately, we will:

1. Establish an interagency workgroup coordinated by Harvey Hollins and Chris Kelenske (who will be actively supported in their work by Rich Baird), and be comprised of DHHS, MDEQ, MSP, Treasury, Genesee County, City of Flint, MDE, LARA and external Subject Matter Experts (SMEs). Civil Rights and MSHDA may be added at a later time. If additional agencies/stakeholders who can assist with accomplishing the action plan are needed, they will be added. Personnel must be goal oriented, transparent with findings and measures of progress, and able to work toward accomplishing the Incident Action Plan created by the state in a timely manner. This is not a discussion or policy group. It is an active problem solving, execution oriented group of professionals of equal stature completely dedicated to the Flint solution and remediation, and enabled by the statewide capabilities of the coordinators. Staff will be needed with competencies in disaster/emergency

planning, operations, logistics and finance as outlined under the National Incident Management System (NIMS). These management components are accountable to the coordinating leadership to ensure tracking of resource requests, and incident action plan items are created, documented and completed. A draft Organization Chart is attached under separate cover and the "dotted lines" depict a non-hierarchical structure where the members commit to working, communicating and sharing collectively vs departmentally.

2. This body should be created by Executive Order and it must complement and not replace the current system under the Emergency Management Act. In fact, it should demonstrate how to best leverage support where existing laws fall short under a man-made emergency.

3. Utilize the National Incident Management System and Unified/Incident Command as appropriate.

4. Establish routine communications protocols at the operational, executive, and legislative levels as determined appropriate.

5. Establish interagency workgroup objectives using the following as a starting point.

<u>Interagency Workgroup Objectives</u>

1. Determine and convey acceptable standards for potable water.
    - Identify needed remediation.
    - Convey the remediation plan objectives to all stakeholders and interested parties.
    - Logistics plan for distribution and serving homebound citizens with water and filtration
    - Implement the plan.
2. Determine health impacts for the impacted population.
    - Identify treatment methods.
    - Nutrition education and support
    - Coping with lead exposure (care, monitoring, neurodevelopmental screening, access to DBP specialists, psychologists/psychiatrists, expanded county services, etc.)
    - Convey the treatment plan objectives to interested parties.
    - Implement the plan.
3. Establish a public information protocol to effectively inform the community of the situation and actions taken.
    - Identify existing Public Information outlets within the city, county, and state.
    - Establish a Joint Information Center
    - Provide for Emergency Alerts and Updates
    - Leverage public and private education schools
    - Determine official information flow and approval of information.
    - Convey to interested parties.
4. Assess the status of the infrastructure and determine feasible actions to upgrade the water system.
    - Determine current state of the infrastructure.
    - Develop priorities, costs, and potential funding sources for infrastructure upgrades as part of a long term recovery plan.
    - Seek partners to assist (NGOs, Foundations, Business, etc.)
    - Implement the plan.

<u>Next Steps</u>

1. Input to this plan has been received and incorporated where feasible. Chief of Staff Jarrod Agen gives final draft approval and reviews with Governor Snyder as soon as possible but not later than Saturday, January 2, 2016

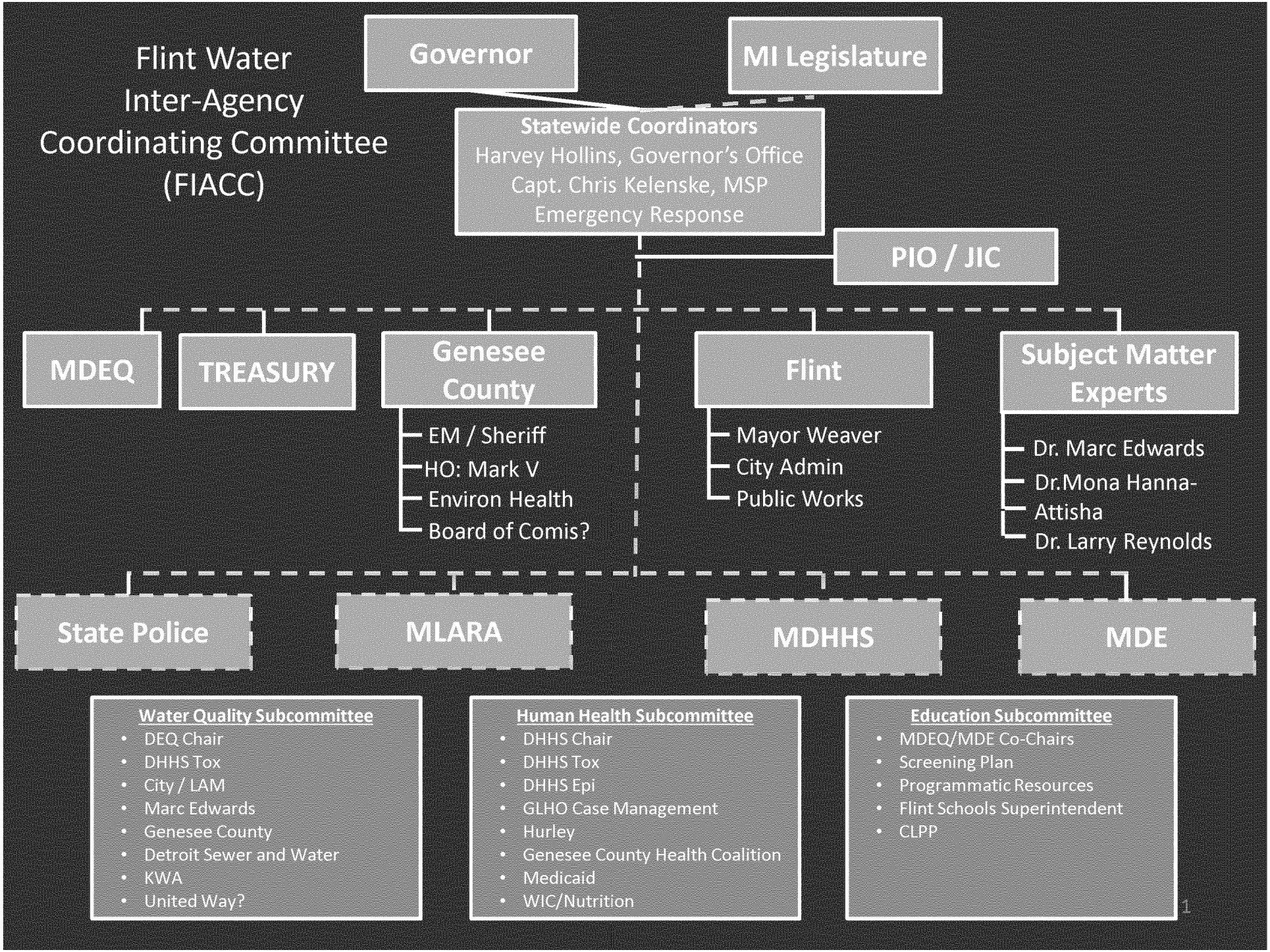
2. Governor Snyder reviews approves/adjusts and decides on the plan and authorizes Harvey Hollins to provide the plan to Mayor Karen Weaver on Saturday or Sunday, January 3, 2016.

3. As a courtesy, I would like to share the plan with the Flint WAATF after it has been provided to Mayor Weaver.

4. Communications should have a strategy on when this plan gets released publically (before, during or after the expected Emergency Declaration by Genesee County. If there is no declaration, we should proactively communicate (and perhaps share the communication with the TF).

5. We are not contemplating activating the State Emergency Operations Center (SEOC) until AFTER Genesee County has demonstrated they did all they conceivably could have done, utilized all available resources to include contracts and mutual aid, and couldn't solve the problem. That is what is required under the Emergency Management Act.

6. MDHHS has put forth a supplemental budget request for FY 16 and 17 for testing, outreach, education, etc. It does not contemplate behavioral or cognitive remediation in the event of lead poisoning.


Flint Water Inter-Agency Coordinating Committee (FIACC)
Governor
MI Legislature
Statewide Coordinators
Harvey Hollins, Governor's Office
Capt. Chris Kelenske, MSP
Emergency Response
PIO / JIC
MDEQ
TREASURY
Genesee County
EM / Sheriff
HO: Mark V
Environ Health
Board of Comis?
Flint
Mayor Weaver
City Admin
Public Works
Subject Matter Experts
Dr. Marc Edwards
Dr.Mona Hanna-Attisha
Dr. Larry Reynolds
State Police
MLARA
MDHHS
MDE
Water Quality Subcommittee
DEQ Chair
DHHS Tox
City / LAM
Marc Edwards
Genesee County
Detroit Sewer and Water
KWA
United Way?
Human Health Subcommittee
DHHS Chair
DHHS Tox
DHHS Epi
GLHO Case Management
Hurley
Genesee County Health Coalition
Medicaid
WIC/Nutrition
Education Subcommittee
MDEQ/MDE Co-Chairs
Screening Plan
Programmatic Resources
Flint Schools Superintendent
CLPP

From: Agen, Jarrod (GOV)
Sent: Friday, January 01, 2016 9:30 AM
To: Baird, Richard (GOV)
Cc: Kelenske, Chris (MSP); Holland, Meegan (GOV); Creagh, Keith (DNR); Lyon, Nick (DHHS); Redford, James (GOV); Murray, David (GOV); Scott, Allison (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV)
Subject: Re: Draft Documents Subject to Attorney Client Privilege (FIAAC)

Thanks all.
I will share with the Governor today.

On Dec 31, 2015, at 3:37 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:

Team:

I have received all of the input provided and thank you. The following highlights:

- The only two "enterprise wide" folks we have as Coordinators are Harvey Hollins and Chris Kalenske. I have changed their titles to reflect a coordination/facilitation role and not connote "We are in charge and to hell with everyone else". Therefore I have changed the org chart and created a "dotted line" depiction—and also added the Legislative body as they (or subsets) may have a role here as well.

- But make no mistake, we are going to be accountable whether we should be or not so we are not syndicated the leadership that comes with the coordinating roles. I rewrote certain pieces of the proposal to reflect our inclusion, equality and partnership. But make no mistake, Harvey and Chris are the guys who will make this coordination effort work and if either of them encounter resistance with any of our partners in this effort, I have pledged to have their backs using my persuasive charm and bankruptcy tested mediation skills…

- I did not bring in more departments at this time. That is not to say they would not be value add, but there is a difference between an emergency response and planning effort, and introducing some other ways to get help and support to Flint. We will do that too, but not at this time.

- I have attached Tim Becker's Supplemental Request. Note that even at $6 million over 2 years it does not include funding for the sort of long term monitoring of consequences of lead impact.

- Lastly I want people to know that we are committed to a spirit of inclusion, even with those who have been relentless in their attacks without offering any insights to solutionality. But some of these people have a stronger interest in advancing their own personal agenda and not devoting any real efforts to solving real problems. They will only be welcome if they decide to pursue the latter behavior vs. the former.

Unless someone thinks I really botched something up in the proposal, I would now ask Jarrod to give it final blessing and share with the Governor to get confirmation on the way forward.

Thanks everyone for a less than 24 hour turnaround and…

Go Green

Ok ok…Go Blue too…

HNY,

Rich

Sent from Mail for Windows 10

<A Proposal to Create the Flint Water Inter [225139].docx>
<IA Coord Com Org Chart [233264].pptx>
<FY16 and FY17 Flint supplemental (233203).xls>

From: Hollins, Harvey (GOV)
Sent: Tuesday, January 05, 2016 1:07 PM
To: Baird, Richard (GOV); Agen, Jarrod (GOV); Holland, Meegan (GOV); Murray, David (GOV); Redford, James (GOV)
Subject: Flint Talking Point

All,

Do we have a talking point for the US AG's investigation:

http://www.detroitnews.com/story/news/michigan/2016/01/05/flint-water-probe/78307142/

Harvey

From: Baird, Richard (GOV)
Sent: Tuesday, January 05, 2016 1:15 PM
To: Hollins, Harvey (GOV); Agen, Jarrod (GOV); Holland, Meegan (GOV); Murray, David (GOV); Redford, James (GOV)
Subject: RE: Flint Talking Point

I will leave that one to Dave M. but at 9:05 am this morning, Gina left me a voicemail that I played for Comms giving us a heads up that they had confirmed this to the Flint Journal. I responded to her at 11:15 (when I first heard the vm) and left a message stating: "We appreciate the US Attorney's involvement and are happy to cooperate fully. The findings of the Task Force established by the Governor are available as is the full cooperation and information from the governor's office and all relevant state departments."

I haven't heard back.

From: Hollins, Harvey (GOV)
Sent: Tuesday, January 05, 2016 1:07 PM
To: Baird, Richard (GOV); Agen, Jarrod (GOV); Holland, Meegan (GOV); Murray, David (GOV); Redford, James (GOV)
Subject: Flint Talking Point

All,

Do we have a talking point for the US AG's investigation:

http://www.detroitnews.com/story/news/michigan/2016/01/05/flint-water-probe/78307142/

Harvey

From: Michigan State Police Alert Notification System <conf-1735095130@everbridge.net>
Sent: Tuesday, January 05, 2016 4:46 PM
To: Redford, James (GOV)
Subject: S E O C Activation

Importance: High

Please click here to acknowledge receipt of this message

The S E O C will be activated at 8 a.m. on Wednesday January 6, 2016 in response to the Flint water crisis and the Emergency Declaration made by Governor Snyder. An e mail was sent to all primary S E M C's this afternoon requesting your agency's participation in a mandatory briefing which will be conducted at the S E O C at 9 a.m. on Wednesday January 6, 2016. Please coordinate within your agency to assure that a representative will be at this briefing.

This message is from the Michigan State Police Alert Notification System and is For Official Use Only.

From: Redford, James (GOV)
Sent: Thursday, March 26, 2015 5:23 PM
To: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV)
Subject: Flint water

Two thoughts after discussions with Valarie:

- Cost to re-connect Flint to DWS seems higher than they should be. She thinks price estimates may be inflated so as to continue to show it was necs to detach from DWS in first place
- Thinks headway could be made by our DEQ director engaging in process/discussions because DSW is in need of a state issued permit for something they would like to/ need to be doing and DEQ could ease the process if DSW were to help substantially in Flint H2O issue

I do not know whether these observations are as visionary as if proclaimed by The Oracle of Delphi herself or if there is no moment at all to the assessments.

I just pass them on as observations, that if accurate , could lead to us being able to get to a good Flint solution on water in place until they are up and running with a new system themselves.

Jim

JAMES ROBERT REDFORD
Legal Counsel
Executive Office of the Governor
111 South Capital Avenue
P.O. Box 30013
Lansing , Michigan 48909
517.241.5630

From: Redford, James (GOV)
Sent: Monday, November 16, 2015 12:04 PM
To: Weber, Travis (GOV); Thomet, Ruth (GOV); Arwood, Cheri (GOV)
Subject: Fwd: NRDC and Flint
Attachments: 2015-11-16-SDWA-Notice of Intent to Sue-Flint-FINAL.PDF; ATT00001.htm

travis please follow up as necs

thx

jim

Sent from my iPad

Begin forwarded message:

> **From:** "Brader, Valerie (LARA)" <braderv@michigan.gov>
> **To:** "Wyant, Dan (DEQ)" <WyantD@michigan.gov>, "Weber, Travis (GOV)" <WeberT7@michigan.gov>, "Redford, James (GOV)" <RedfordJ@michigan.gov>
> **Subject: FW: NRDC and Flint**
>
> ---
>
> **From:** Gonzalez, Ariana [[redacted]
> **Sent:** Monday, November 16, 2015 9:13 AM
> **To:** Brader, Valerie (LARA)
> **Subject:** NRDC and Flint
>
> Hi Valerie,
>
> I hoped to catch you on the phone, but didn't make it through. I wanted you to hear from me that NRDC's litigation team is at this moment filing a notice of intent to sue among others the City of Flint, Governor Snyder, and Dan Wyant under the Safe Drinking Water Act. NRDC along with the Concerned Pastors for Social Action, Melissa Mays, the American Civil Liberties Union of Michigan will working together in the state on this issue. I can put you in touch with those working in Flint if you'd like and will continue to be a resource and partner on all energy related matters. Please let me know if you have questions or would like more information.
>
> Ariana
>
> ARIANA GONZALEZ
> *Energy Policy Analyst*
> NATURAL RESOURCES
> DEFENSE COUNCIL
> 20 N. WACKER DRIVE, SUITE 1600
> CHICAGO, IL 60606
> T 312.651.7924
> [redacted]

November 16, 2015

By Certified Mail, Return Receipt Requested

City of Flint
Attn: Mayor Karen Williams Weaver
1101 South Saginaw Street
Flint, MI 48502
mayor@cityofflint.com

Governor Rick Snyder
P.O. Box 30013
Lansing, MI 48909
contactmichigan@state.mi.us

Director Dan Wyant
Michigan Department of Environmental Quality
Constitution Hall
525 West Allegan Street
P.O. Box 30473
Lansing, MI 48909-7973
WyantD@michigan.gov

Treasurer Nick A. Khouri
Michigan Department of Treasury
Richard H. Austin Building
430 West Allegan Street
Lansing, MI 48922
KhouriN@michigan.gov

RTAB Chairperson Frederick Headen
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
HeadenF@michigan.gov

RTAB Member Brian Larkin
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
blarkin@flintandgenessee.org

RTAB Member David McGhee
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
drmcghee@skillman.org

RTAB Member Robert McMahan
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
president@kettering.edu

RTAB Member Beverly Walker-Griffea
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
b.walkergriffea@mcc.edu

City Administrator Natasha Henderson
Flint City Hall
1101 South Saginaw Street
Flint, MI 48502
nhenderson@cityofflint.com

Re: Notice of Intent to Sue Under the Safe Drinking Water Act, 42 U.S.C. § 300j-8(b)(1)(a), for Failure to Control Lead in Drinking Water in Flint, Michigan, and Failure to Assist Michigan Schools with Lead Testing and Remediation

We write on behalf of Concerned Pastors for Social Action, Melissa Mays, the American Civil Liberties Union of Michigan (ACLU of Michigan), and the Natural

Resources Defense Council (NRDC), nonprofit citizens' organizations and individuals working to secure safe drinking water for the residents of Flint, Michigan. Since April 2014, the City of Flint and Michigan state officials have failed to monitor and control for lead in Flint's drinking water, and to maintain a program to assist Michigan schools with lead testing and remediation, in violation of the Safe Drinking Water Act, 42 U.S.C. § 300f et seq. This letter provides notice pursuant to 42 U.S.C. § 300j-8(b)(1)(a) that we intend to sue the City of Flint; Rick Snyder, Governor of Michigan; Dan Wyant, Director of Michigan Department of Environmental Quality; Nick A. Khouri, Treasurer of Michigan; Frederick Headen, Chairperson of the Flint Receivership Transition Advisory Board (Board); Brian Larkin, David McGhee, Robert McMahan, and Beverly Walker-Griffea, Members, RTAB; and Natasha Henderson, Flint City Administrator, if these violations are not remedied within sixty days.[1]

Concerned Pastors for Social Action is an association of religious leaders from more than thirty churches and ministries in the Flint area that has advocated for the rights of the underserved for nearly fifty years. Melissa Mays is a Flint resident whose family has suffered from serious health problems as a result of the City's failure to provide safe drinking water. The ACLU of Michigan works in courts, legislatures, and communities to preserve the protections that our laws guarantee to all citizens. NRDC is a national membership organization committed to protecting public health and the environment and to reducing the exposure of all communities to toxic chemicals. These groups and individuals continue to be harmed by the violations of the Safe Drinking Water Act by the City and Michigan state officials, detailed below.

I. City and State officials have exposed and continue to expose Flint residents to dangerous amounts of lead in drinking water

A. The City, Emergency Manager, and State Treasurer chose the Flint River as a primary drinking-water source

In the fall of 2011, Michigan Governor Rick Snyder declared a financial emergency in the City of Flint and appointed an emergency manager to take control of the City's operations and finances.[2] Flint Mayor Dayne Walling and the City Council were stripped of all authority except as specifically allowed by the Emergency Manager, and the City was placed in state receivership.[3] Under Michigan's Local Financial Stability and Choice Act, an

---

[1] These individuals are noticed in their official capacities.

[2] *See* Mich. Comp. Laws § 141.1549; Letter from Gov. Rick Snyder to Mayor Dayne Walling and Flint City Council (Nov. 8, 2011), http://www.michigan.gov/documents/treasury/Flint-GovernorsDetermination-11-8-11_417435_7.pdf (attached as Ex. 1); Dawson Bell, *Governor names Flint native as city's emergency financial manager*, Detroit Free Press, Nov. 30, 2011, http://www.freep.com/article/20111130/NEWS06/111300370/Governor-names-Flint-native-city-s-emergency-financial-manager (attached as Ex. 2).

[3] Mich. Comp. Laws § 141.1549(2).

Emergency Manager has "broad powers" to "rectify the financial emergency and to assure fiscal accountability of the local government."[4]

While under control of the Emergency Manager, the City faced decisions about the future of its drinking-water supply. For fifty years, the City had purchased drinking water from the Detroit Water and Sewerage Department (Detroit), which sources water from Lake Huron.[5] In response to rising water rates charged by Detroit, in March 2013, the City Council voted to join the Karegnondi Water Authority (KWA), a newly formed municipal water supply system. The KWA was planning to build a pipeline to distribute water directly from Lake Huron to mid-Michigan communities, including Genesee County, where Flint is located.[6] The City Council's vote did not become effective until several weeks later, after both the Emergency Manager and State Treasurer approved the decision.[7]

The City's contract with Detroit was set to expire in April 2014, at least eighteen months before the KWA pipeline was scheduled to be completed.[8] Faced with a year-and-a-half gap in the City's water supply, the Emergency Manager declined to negotiate a short-term contract with Detroit and decided instead to use the Flint River as a primary drinking-water source.[9] The City had previously explored—and rejected—the Flint River as a primary drinking-water source. This is because the Flint Water Treatment Plant would have required fifty million dollars in upgrades to treat the river water and "produce finished water in conformance with the current federal and state drinking water regulations."[10]

---

[4] *Id.*

[5] *See* Dominic Adams, *Closing the valve on history: Flint cuts water flow from Detroit after nearly 50 years*, Michigan Live, Apr. 25, 2014, http://www.mlive.com/news/flint/index.ssf/2014/04/closing_the_valve_on_history_f.html (attached as Ex. 3).

[6] Steve Carmody, *Flint opting to get its future tap water from Lake Huron*, Michigan Radio, Mar. 25, 2013, http://michiganradio.org/post/flint-opting-get-its-future-tap-water-lake-huron#stream/ (attached as Ex. 4); Karegnondi Water Authority, About, http://www.karegnondi.com/#!about/c20r9 (last visited Nov. 13, 2015) (attached as Ex. 5).

[7] *See* Mich. Comp. Laws § 141.1552(1)(g), (3); Emergency Manager, Resolution to Purchase Capacity from Karegnondi Water Authority (adopted Mar. 29, 2013) (attached as Ex. 6); Letter from Andy Dillon, State Treasurer, to Edward Kurtz, Emergency Manager (Apr. 11, 2013) (authorizing Emergency Manager to enter into contract with KWA) (attached as Ex. 7).

[8] Sarah Schuch, *KWA pipeline work continues as Flint water lead concerns rise*, Michigan Live, Sept. 25, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/kwa_pipeline_projected_to_be_c.html (attached as Ex. 8); *see* Ron Fonger, *Detroit gives notice: It's terminating water contract covering Flint, Genesee County in one year*, Michigan Live, Apr. 19, 2013, http://www.mlive.com/news/flint/index.ssf/2013/04/detroit_gives_notice_its_termi.html (attached as Ex. 9).

[9] Letter from Darnell Earley, Emergency Manager, to Sue McCormick, Detroit Water & Sewer Dep't (Mar. 7, 2014) (explaining that the City "has actively pursued using the Flint River as a temporary water source" instead of accepting Detroit's offer to provide water to the City) (attached as Ex. 10).

[10] Cost of Service Study (2011), Appendix 8 to Analysis of the Flint River as a Permanent Water Supply for the City of Flint, http://www.scribd.com/doc/64382181/Analysis-of-the-Flint-River-as-a-Permanent-Water-Supply-for-the-City-of-Flint-July-2011-Appendices-1-to-8 (attached as Ex. 11);

Under the Safe Drinking Water Act's Lead and Copper Rule, Flint's water system could not use the Flint River as a water source without first obtaining approval from the Michigan Department of Environmental Quality (MDEQ). The Lead and Copper Rule required MDEQ to approve both the City's proposed addition of a new water source (the Flint River) and the long-term change in water treatment (from treatment through Detroit's water plant to treatment at the Flint Water Treatment Plant).[11] In April 2014, MDEQ approved the switch to river water.[12] The City immediately began pumping Flint River water through the City's distribution pipes and into residents' taps.

B. Dangerous lead contamination results from the City's switch to river water

In the twenty months following the switch in water sources, residents' drinking water has been at times cloudy, discolored, and foul-smelling.[13] Residents reported that they have experienced hair loss, skin rashes, and vomiting after drinking the water.[14] In the summer of 2014, the City was forced to issue several boil-water notices after tap water tested positive for total coliform bacteria.[15] The City's subsequent treatment of the water to kill disease-carrying pathogens resulted in elevated levels of total trihalomethanes, a disinfection byproduct that can cause serious health problems, including an increased risk of cancer.[16]

---

see also Kristin Longley, *Water pipeline v. Flint River: City of Flint studying its drinking water options*, Michigan Live, Jan. 22, 2011, http://www.mlive.com/news/flint/index.ssf/2011/01/water_pipeline_vs_flint_river.html (attached as Ex. 12); Dominic Adams, *Flint River now an option for drinking water following Detroit's termination of contract*, Michigan Live, July 23, 2013, http://www.mlive.com/news/flint/index.ssf/2013/07/city_readying_water_plant_to_t.html (quoting city officials' explanation for rejecting use of Flint River: "upgrades to Flint's water plant would be too expensive, the river didn't provide enough capacity to serve Flint residents' water needs and the Michigan Department of Environmental Quality would not allow it") (attached as Ex. 13).

[11] 40 C.F.R. § 141.90(a)(3); *see also id.* § 141.81(a)-(b).

[12] *See* Adams, *Closing the valve on history*, *supra* note 5 (Ex. 3).

[13] *See* Curt Guyette, *In Flint, Michigan, Overpriced Water is Causing People's Skin to Erupt in Rashes and Hair to Fall Out*, The Nation, July 16, 2015, http://www.thenation.com/article/in-flint-michigan-overpriced-water-is-causing-peoples-skin-to-erupt-and-hair-to-fall-out/ (attached as Ex. 14); Wenonah Hauter, *Flint's Brown Water Blues*, Huffington Post, July 10, 2015, http://www.huffingtonpost.com/wenonah-hauter/flints-brown-water-blues_b_7765132.html (attached as Ex. 15).

[14] Laura Gottesdiener, *Flint, Mich., residents find state water control hard to swallow*, Al Jazeera America, Apr. 3, 2015, http://america.aljazeera.com/articles/2015/4/3/flint-residents-find-state-water-control-hard-to-swallow.html (attached as Ex. 16).

[15] Ron Fonger, *Flint issues boil water advisory for section of the city after positive test result for total coliform bacteria*, Michigan Live, Sept. 5, 2014, http://www.mlive.com/news/flint/index.ssf/2014/09/flint_issues_boil_water_adviso.html (attached as Ex. 17).

[16] Robin Erb, *Who wants to drink Flint's water?*, Detroit Free Press, Jan. 23, 2015, http://www.freep.com/story/news/local/michigan/2015/01/22/water-woes-latest-hit-flint/22193291/ (attached as Ex. 18); Mich. Dep't of Envtl. Quality, Violation Notice—Maximum Contaminant Level for Total Trihalomethanes (Dec. 16, 2014) (attached as Ex. 19); U.S. EPA, Basic Information about Disinfection Byproducts in Drinking Water, http://water.epa.gov/drink/contaminants/basicinform

Because Flint River water is also highly corrosive, dangerous amounts of lead began to leach out of pipes and into the City's drinking water.[17] Lead in drinking water occurs primarily from corrosion of pipes and other plumbing materials that contain lead or lead solder.[18] The Lead and Copper Rule requires water systems to manage lead levels by controlling corrosion, which is often accomplished by adding corrosion-inhibiting chemicals.[19] Water systems must implement and maintain an "optimal" corrosion-control treatment program that "minimizes the lead . . . concentrations at users' taps."[20]

Flint did not consider how to control the corrosivity of the river water before switching water sources, nor did MDEQ require the City to implement any corrosion-control measures. Rather, beginning in April 2014, the City did not use any form of treatment to control corrosion.[21] The City waited until after its residents were drinking the river water to assess whether it posed a risk of increased lead exposure. MDEQ endorsed this approach. In June 2014, Flint's water system initiated the first of two six-month monitoring periods to test tap water for lead under the Lead and Copper Rule; the second six-month period ran from January to June 2015.[22] During these monitoring periods, the water system used flawed testing methods that appear to have been designed to underreport the lead content of residents' drinking water.[23]

---

ation/disinfectionbyproducts.cfm (last updated Dec. 13, 2013) (attached as Ex. 20); *see also* 40 C.F.R. § 141.64(b).

[17] Marc Edwards, *Test Update: Flint River water 19X more corrosive than Detroit water for Lead Solder; Now What?*, Flint Water Study (Sept. 11, 2015), http://flintwaterstudy.org/2015/09/test-update-flint-river-water-19x-more-corrosive-than-detroit-water-for-lead-solder-now-what/ (attached as Ex. 21); Marc Edwards, *Flint River water is very corrosive to lead, and causing lead contamination in homes*, Flint Water Study (Sept. 2, 2015), http://flintwaterstudy.org/2015/09/flint-rivers-water-is-very-corrosive-to-lead-and-causing-lead-contamination-in-homes/ (attached as Ex. 22). The river water is so corrosive that in October 2014, a local GM engine plant decided to switch back to Lake Huron water to avoid damage to equipment at the plant from corrosion. Brianna Owczarzak, *GM says no to Flint water*, WNEM, Oct. 14, 2014, http://www.wnem.com/story/26785625/gm-says-no-to-flint-water (attached as Ex. 23).

[18] *See* Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper, 56 Fed. Reg. 26,460, 26,464 (June 7, 1991).

[19] *See* 40 C.F.R. § 141.82.

[20] *Id.* §§ 141.2; 141.80(d).

[21] *See* Email from Pat Cook, MDEQ, to Miguel Del Toral, U.S. EPA (Apr. 24, 2015) (attached as Ex. 24).

[22] *See* 40 C.F.R. § 141.86; Email from Pat Cook, *supra* note 21 (Ex. 24).

[23] *See infra* pp. 11-13.

Flint's monitoring data showed that some residents' water contained lead at concentrations above the federal "action level" of 15 parts per billion (ppb).[24] These high lead levels put residents at risk of a broad array of serious, irreversible health effects, including cognitive impairment, kidney damage, and increased blood pressure.[25] When the Environmental Protection Agency (EPA) learned of these high lead sampling results in February 2015, it notified MDEQ officials that the sampling results raised significant concerns about corrosion from lead pipes in Flint's distribution system.[26] Nonetheless, throughout the monitoring periods, the City and MDEQ maintained that these high lead levels were isolated and that the data, taken together, demonstrated Flint's compliance with the Lead and Copper Rule.[27]

C. Community advocacy and independent testing prompt long past due response from City and State officials

As the City concluded its second six-month round of sampling in July 2015, and notified some Flint residents of elevated lead levels in their tap water, the community became increasingly concerned. A small coalition of local groups, including Water You Fighting For and Concerned Pastors for Social Action, began working with researchers at Virginia Tech to conduct their own lead sampling of Flint's water. The Virginia Tech scientists found that ten percent of the more than 250 samples collected from Flint residences had lead levels of 25 ppb or more, well above the federal action level for lead.[28] Several samples exceeded 100 ppb, and one sample exceeded 1000 ppb.[29] Though aware of

---

[24] *See* Mich. Dep't of Envtl. Quality, Lead and Copper Report and Consumer Notice of Lead Result Certificate for Community Water Supply (Aug. 20, 2015) (showing six samples with lead levels over the action level) (attached as Ex. 25); 40 C.F.R. § 141.80(c)(1).

[25] *See, e.g.*, U.S. EPA, Integrated Science Assessment for Lead tbl.ES-1 (June 2013) (attached as Ex. 26); U.S. EPA, Basic Information About Lead in Drinking Water, http://water.epa.gov/drink/contaminants/basicinformation/lead.cfm (last updated June 26, 2015) (explaining that "[i]nfants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development," and that "[a]dults who drink this water over many years could develop kidney problems or high blood pressure") (attached as Ex. 27); *see also* National Ambient Air Quality Standards for Lead, 80 Fed. Reg. 278, 290 (Jan. 5, 2015).

[26] *See, e.g.*, Email from Jennifer Crooks, U.S. EPA, to Stephen Busch, MDEQ, and Mike Prysby, MDEQ (Feb. 26, 2015) (attached as Ex. 28).

[27] *See* Nancy Kaffer, *MDEQ e-mails show stunning indifference to Flint peril*, Detroit Free Press, Oct. 22, 2015, http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/10/21/indifference-characterized-state-approach-flint-water/74289430/ (attached as Ex. 29).

[28] *Flint Town Hall Meeting Presentation and Distribution of lead results across Flint by ward and zip codes*, Flint Water Study, Sept. 16, 2015, http://flintwaterstudy.org/2015/09/distribution-of-lead-results-across-flint-by-ward-and-zip-codes/ (attached as Ex. 30); Ron Fonger, *Virginia Tech professor says Flint's tests for lead in water can't be trusted*, Michigan Live, Sept. 15, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/virginia_tech_researcher_says.html (attached as Ex. 31).

[29] Marc Edwards et al., *Lead testing results for water sampled by residents,* Flint Water Study, Sept. 28, 2015, http://flintwaterstudy.org/information-for-flint-residents/results-for-citizen-testing-for-lead-300-kits/ (attached as Ex. 32).

the Virginia Tech sampling results, MDEQ officials continued to insist that Flint's water was safe to drink.[30]

In September 2015, a medical study conducted by a local pediatrician confirmed the kinds of adverse health impacts that residents had voiced concern about for months: the rate of Flint children with elevated blood lead levels had nearly doubled since the City changed its drinking-water source.[31] State officials and the Governor reacted by "downplay[ing] and in some cases attempt[ing] to discredit" the pediatrician's findings, and dismissing citizen concerns as "near-hysteri[cal]."[32]

Subsequent testing by MDEQ revealed that at least four schools in Flint had lead levels in their drinking water above the federal action level.[33] At Freeman Elementary School, water tested had lead levels over 100 ppb, more than six times the federal action level.[34] This increase in lead exposure is particularly dangerous in Flint, a community where residents are already at higher risk of elevated blood lead levels and lead poisoning. Michigan ranks fifth worst in the country for harmful exposures to lead.[35] Low income is a risk factor for lead poisoning, and more than a third of families in Flint live below the poverty level, three times the national average.[36] Children in Flint also face high risk of lead

---

[30] Ron Fonger, *Feds sending in experts to help Flint keep lead out of water*, Michigan Live, Sept. 10, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/university_researchers_dont_dr.html (attached as Ex. 33).

[31] *Pediatric Lead Exposure in Flint, MI: Concerns from the Medical Community* (PowerPoint Presentation) (presented on Sept. 24, 2015), *available at* http://flintwaterstudy.org/2015/09/pediatric-lead-exposure-presentation-from-hurley-medical-center-doctors-concerning-flint-mi/ (attached as Ex. 34).

[32] *Study suggests Flint's water causing increased lead poisoning*, Michigan Radio, Sept. 28, 2015, http://michiganradio.org/post/study-suggests-flints-water-causing-increased-lead-poisoning#stream/0 (attached as Ex. 35); Ron Fonger, *State says data shows no link to Flint River, elevated lead in blood,* Michigan Live, Sept. 24, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/state_says_its_data_shows_no_c.html (attached as Ex. 36); *Did this Michigan Town Poison its Children?*, U.S. News & World Report, Sept. 24, 2015, http://www.usnews.com/news/articles/2015/09/25/flint-michigan-children-show-high-levels-of-lead-in-blood (attached as Ex. 37).

[33] Steve Carmody, *Four Flint schools have high lead levels in their water*, Michigan Radio, Oct. 8, 2015, http://michiganradio.org/post/four-flint-schools-have-high-lead-levels-their-water (attached as Ex. 38).

[34] *Id.*

[35] Ctrs. for Disease Control & Prevention, *Public Health in Action: Lead Poisoning Prevention in Michigan* (last updated Feb. 4, 2013), http://www.cdc.gov/nceh/information/healthy_homes_lead.htm (attached as Ex. 39).

[36] 2009-2013 American Community Survey 5-Year Estimates, 2013, *available at* http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml (enter "Flint, MI" in the box under "Community Facts," click on "Income" on left-side bar, then click "Selected Economic Characteristics" under "2013 American Community Survey") (table attached as Ex. 40 compares data from Flint, Michigan, to Michigan and the United States).

exposure from lead-paint dust, as nearly ninety percent of Flint's housing stock was built before 1978 (when the federal ban on high-lead paint went into effect).[37]

Finally, in late September 2015, the City abandoned its assertions that Flint's drinking water was safe. Nearly seven months after the City first saw dangerously high levels of lead in some residents' water, Flint issued a drinking-water advisory and called for state financial assistance to switch the water system back to Detroit's supply.[38] Two weeks later, Governor Snyder requested six million dollars from the state legislature to reconnect the Flint water system to Detroit.[39] With additional funding from the City and a private foundation, the switch was completed in mid-October.[40]

Following the switch back to Detroit water, some government officials began to ask questions about what went wrong in the course of Flint's change in water sources.[41] Governor Snyder created a task force to review water management and testing in Flint,[42] and EPA established its own task force "to provide the Agency's technical expertise through regular conversations" with the City and MDEQ.[43] Governor Snyder has also announced

---

[37] *2012 Annual Data Report on Blood Lead Levels of Children in Michigan* 26 (Apr. 30, 2013), https://www.michigan.gov/documents/mdch/2012AnnualDataReportOnBloodLeadLevels_419508_7.pdf (attached as Ex. 41); Am. Cancer Soc'y, *Lead, Lead in the Environment,* http://www.cancer.org/cancer/cancercauses/othercarcinogens/athome/lead (last updated May 27, 2014) (explaining that lead paint is a "major" source of exposure) (attached as Ex. 42); Maj. Thomas F. Zimmerman, *The Regulation of Lead-Based Paint in Air Force Housing,* 44 A.F. L. Rev. 169, 174-75 (1998).

[38] *City of Flint Issues Lead Advisory*, City of Flint, Sept. 25, 2015, https://www.cityofflint.com/2015/09/25/city-of-flint-issues-lead-advisory/ (attached as Ex. 43); Steve Carmody, *Flint officials exploring return to Detroit water*, Michigan Radio, Sept. 28, 2015, http://michiganradio.org/post/flint-officials-exploring-return-detroit-water#stream/0 (attached as Ex. 44).

[39] John Wisely, *Snyder announces $12 million plan to fix Flint water*, Detroit Free Press, Oct. 8, 2015, http://www.freep.com/story/news/local/michigan/2015/10/08/snyder-flint-water-reconnect/73567778/ (attached as Ex. 45).

[40] Amanda Emery, *Flint reconnects to Detroit water, may take 3 weeks to clear all pipes*, Michigan Live, Oct. 16, 2015, http://www.mlive.com/news/flint/index.ssf/2015/10/flint_reconnecting_to_detroit.html (attached as Ex. 46).

[41] *E.g.*, Letter from Sen. Jim Ananich, Mich. Senate Minority Leader, to Susan Hedman, U.S. EPA, and Gina McCarthy, U.S. EPA (Oct. 21, 2015) (attached as Ex. 47); Letter from Rep. Daniel Kildee, U.S. Congressman, to Gina McCarthy, U.S. EPA (Oct. 21, 2015) (attached as Ex. 48).

[42] Press Release, Gov. Rick Snyder, *Gov. Rick Snyder announces Flint Water Task Force to review state, federal and municipal actions, offer recommendations* (Oct. 21, 2015), http://www.michigan.gov/snyder/0,4668,7-277-57577_57657-367761--,00.html (attached as Ex. 49).

[43] Press Release, U.S. EPA, *EPA Establishes Safe Drinking Water Task Force to Provide Technical Expertise to MDEQ and City of Flint* (Oct. 16, 2015), http://yosemite.epa.gov/opa/admpress.nsf/0/A92DE629DB86E66685257EE000579593 (attached as Ex. 50).

plans to launch an "education campaign soon to help schools statewide learn how to get their water tested" for lead.[44]

Despite this proliferation of task forces and campaigns, neither the City nor MDEQ has announced changes in the City's lead monitoring practices in the wake of Flint's public-health crisis. Rather, Flint and MDEQ have maintained that these practices are accurate and adequate, despite the near certainty that they are underrepresenting lead contamination in many of Flint's high-risk homes.

II. City and State officials are in violation of the Safe Drinking Water Act's Lead and Copper Rule

The Safe Drinking Water Act (the Act) authorizes citizens to sue any governmental entity "who is alleged to be in violation of any requirement" under the statute.[45] These requirements include the national primary drinking-water regulations for lead and copper set forth in the Lead and Copper Rule.[46] The Lead and Copper Rule obligates water systems to monitor and control for lead in drinking water.[47]

Since April 2014, Flint's water system has failed to comply with the Lead and Copper Rule's requirements for monitoring water for lead, notifying the public of tap-water monitoring results, reporting monitoring results to MDEQ, and controlling corrosion from lead pipes.[48] These violations systematically result in the City's underestimating lead levels in its drinking water, masking a public-health crisis. The violations are ongoing and likely to recur in the future: Flint's water system presently is obligated to monitor for lead every six months, and there is no indication that Flint has changed or disavowed its inadequate approach to monitoring.[49]

---

[44] *See* Lori Higgins, *Michigan to launch lead education effort statewide*, Detroit Free Press, Oct. 13, 2015, http://www.freep.com/story/news/local/michigan/2015/10/13/lead-water-flint-michigan-testing/73871480/ (attached as Ex. 51).

[45] 42 U.S.C. § 300j-8(a)(1).

[46] *See id.* § 300g-1(b)(1)(A); 40 C.F.R. § 141.80(a)(1).

[47] *See, e.g.*, 40 C.F.R. § 141.86.

[48] Flint's water system is subject to the requirements of the Lead and Copper Rule because it is a "community water system" not otherwise exempted from the regulations. 40 C.F.R. §§ 141.80(a)(1), 141.2.

[49] *See Tamaska v. City of Bluff City*, 26 F. App'x 482, 485 (6th Cir. 2002) (citing *Chesapeake Bay Found. v. Gwaltney of Smithfield*, 844 F.2d 170, 171–72 (4th Cir.1988)). A water system is required to monitor tap water for lead every six months if it (1) exceeds the action level for any monitoring period, or (2) "fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the State … for more than 9 days in any six-month period." 40 C.F.R. § 141.86(d)(4)(vi)(B). Flint's water system failed to maintain applicable values of orthophosphate and/or pH designated as the optimal water quality parameters by MDEQ. In addition, had the water system conducted monitoring in compliance with the Lead and Copper Rule during the January to June 2015 period, it likely would have exceeded the lead action level.

Under the Act, a "supplier of water" is "any person who owns or operates a public water system."[50] The City of Flint owns Flint's water system.[51] Upon information and belief, the State officials administering Flint's receivership and the City presently operate Flint's water system. As discussed above, Flint's Emergency Manager exercised the authority of the local government in the place of Flint's mayor and city council. The Emergency Manager managed the water system and conducted its affairs, including making the decision to use the Flint River as a primary drinking-water source.[52] In April 2015, Governor Snyder removed the Emergency Manager and appointed a Receivership Transition Advisory Board to oversee the City's affairs until the receivership is terminated.[53] The Board has control over the City's budget, and must approve all decisions adopted by the City Council.[54] The Michigan Local Financial Stability and Choice Act requires the State Treasurer to sit on a receivership transition advisory board for any municipality for which the governor appoints such a board, and Governor Snyder has appointed the State Treasurer (or his designee) to chair Flint's Board.[55] The City Administrator reports to the Board, manages the City's daily administrative operations, and directs City department heads in carrying out the daily activities of the City.[56] To date, the City remains in receivership, and its actions remain subject to approval of the Board.[57]

Accordingly, the City of Flint; Governor Snyder; Dan Wyant, Director of MDEQ; Nick A. Khouri, Treasurer of Michigan; Frederick Headen, Chairperson of the Flint Receivership Transition Advisory Board; Brian Larkin, David McGhee, Robert McMahan,

---

[50] 42 U.S.C. § 300f(5).

[51] *See* City of Flint, Water System Update, Sept. 2015, https://www.cityofflint.com/wp-content/uploads/City-Council-Water-Presentation-9-14-2015.pdf (attached as Ex. 52).

[52] *See United States v. Twp. of Brighton*, 153 F.3d 307, 314 (6th Cir. 1998) (defining "operator" for purposes of CERCLA as an entity that "performed some affirmative acts," such as "directing the workings, managing, or conducting the affairs" of a facility) (internal quotation marks and alterations omitted); *cf. United States v. Alisal Water Corp.*, 114 F. Supp. 2d 927, 938 (N.D. Cal. 2000) (applying case law discussing CERCLA "operator" liability to the Safe Drinking Water Act context).

[53] Mich. Comp. Laws § 141.1563(1); Press Release, Gov. Rick Snyder, *Gov. Rick Snyder: City of Flint ready to move forward as financial emergency resolved*, Apr. 29, 2015, http://www.michigan.gov/snyder/0,4668,7-277-57577_57657-353433--,00.html (attached as Ex. 53); Emergency Manager Order 20 ¶¶ 4.a.6, 4.a.7 (adopted Apr. 25, 2015), https://www.cityofflint.com/wp-content/uploads/Order-No.-20.pdf (attached as Ex. 54).

[54] Emergency Manager Order 20 ¶¶ 4.a.6, 4.a.7, *supra* note 53 (Ex. 54).

[55] *See* Mich. Comp. Laws § 141.1563(2); Letter from Gov. Rick Snyder to Hon. Ruth Johnson, Mich. Sec'y of State (Apr. 29, 2015), http://michigan.gov/documents/treasury/Flint_RTAB_Appointments_488251_7.pdf (attached as Ex. 55).

[56] Emergency Manager Order 3 ¶¶ 4-6, 25 (adopted Apr. 10, 2015), https://www.cityofflint.com/wp-content/uploads/Order-No.-3.pdf (attached as Ex. 56). The City Administrator was appointed by the Emergency Manager and can be removed only with the Board's consent.

[57] *Id.*

and Beverly Walker-Griffea, Members of the Board; and Natasha Henderson, Flint City Administrator, are responsible for the violations of the Act by Flint's water system which have endangered and will continue to endanger the health of Flint's residents.

A. Flint's water system is in violation of the Lead and Copper Rule's tap-water monitoring, reporting, and notification requirements

The Lead and Copper Rule requires water systems to identify a pool of sampling sites prior to the commencement of a monitoring period.[58] This requirement is designed to target residences at high risk of lead contamination in drinking water, such as homes served by lead service lines.[59] In violation of the Rule, Flint's water system does not select sampling sites for lead monitoring based on a pre-established sampling pool. For Flint's most recent completed monitoring period, January–June 2015, the Director of the City's Department of Public Works admitted that Flint "thr[ew] bottles out everywhere just to collect as many [samples] as we can, to try and hit our number."[60] Similarly, email correspondence shows that the City has, during several monitoring periods, asked its own employees to submit tap-water samples, without regard to whether the employees were part of a pre-selected sampling pool.[61]

Under the Lead and Copper Rule, water systems that contain lead service lines also must draw fifty percent of their tap-water samples from sites served by a lead service line.[62] Flint's water system does not comply with this requirement. The water system reported to MDEQ that all the sample sites it used during the January–June 2015 monitoring period were residences served by lead service lines.[63] Flint's Utilities Administrator, however, admitted that he was not able to verify that all homes sampled were served by lead service lines.[64] This is because City records concerning the locations of lead service lines in the distribution system are stored on 45,000 paper notecards. Flint began converting these notecards into an electronic spreadsheet this fall, well after the January–June 2015 monitoring period.[65]

---

[58] *See* 40 C.F.R. § 141.86(a).

[59] *Id.*

[60] *See* ACLU of Michigan, *Thirst for Truth: Who's to Blame for Flint Water Crisis?*, https://www.youtube.com/watch?t=9&v=LTO9irD2f0Y (posted Sept. 23, 2015).

[61] Email from Michael Glasgow, Flint Utilities Adm'r, to Flint municipal staff (June 1, 2015) (attached as Ex. 57).

[62] 40 C.F.R. § 141.86(a)(8).

[63] *See, e.g.*, City of Flint, Lead and Copper Report and Consumer Notice of Lead Result Certificate for Community Water Supply (July 28, 2015) [hereinafter July 28 Report] (attached as Ex. 58).

[64] *See* ACLU of Michigan, *Thirst for Truth: Who's to Blame for Flint Water Crisis?*, *supra* note 60.

[65] *See* Ron Fonger, *Flint data on lead water lines stored on 45,000 index cards*, Michigan Live, Oct. 1, 2015, http://www.mlive.com/news/flint/index.ssf/2015/10/flint_official_says_data_on_lo.html (attached as Ex. 59).

Flint's water system has also failed to sample the same sites across monitoring periods or document the reasons for declining to sample the same sites, as the Lead and Copper Rule requires.[66] Sampling new sites from one monitoring period to the next is permitted only if a site "is no longer accessible" to the water system or "no longer fits the requirements of a priority site."[67] Records show that in the January–June 2015 monitoring period, Flint's water system retested only thirteen of the one hundred sites it sampled in the previous monitoring period.[68] It did not provide the required explanation for these departures from the previous monitoring period's sampling sites.[69] Upon information and belief, Flint's water system concentrated its monitoring in areas where it anticipated low lead levels, due to recent infrastructure improvements, and selectively retested sites that had previously yielded low lead levels. Such selective sampling violates the Lead and Copper Rule's intention that water systems "do not use only those sampling locations with the lowest lead or copper levels."[70]

Flint's instructions to residents for the collection of tap-water samples also violate the Lead and Copper Rule. The Rule allows residents to collect the tap-water samples used to monitor lead in drinking water, so long as the water system instructs residents of the sampling procedures required by the regulations.[71] Tap-water samples must be "first-draw samples," meaning that the sample must be collected after water in the tap has stood motionless in the plumbing system for at least six hours.[72] Flint's instructions direct residents to flush their taps for five minutes prior to letting the water sit for the six required hours. This "pre-flushing" has been shown to "result in the minimization of lead capture and significant underestimation of lead levels in drinking water."[73] The water system's pre-flush instruction "negates the intent of the [Lead and Copper Rule] to collect compliance

---

[66] 40 C.F.R. § 141.86(b)(4).

[67] U.S. EPA, *Lead and Copper Rule Monitoring and Reporting Guidance for Public Water Systems* 25 (Mar. 2010), http://water.epa.gov/lawsregs/rulesregs/sdwa/lcr/upload/Revised-Lead-and-Copper-Rule-Monitoring-and-Reporting-Guidance-for-Public-Water-Systems.pdf (attached as Ex. 60).

[68] *See* July 28 Report, *supra* note 63 (reporting that the same sample sites were not used) (Ex. 58); *see also* Curt Guyette, *Lead Astray: An ACLU of Michigan investigation has found a stream of irregularities in Flint's water tests*, Michigan Democracy Watch Blog, Sept. 14, 2015, http://aclumich.org/democracywatch/index.php/entry/lead-astray-an-aclu-of-michigan-investigation-has-found-a-stream-of-irregularities-in-flint-s-water-tests (attached as Ex. 61).

[69] 40 C.F.R. § 141.90(a)(1)(v).

[70] U.S. EPA, *Lead and Copper Rule Monitoring and Reporting Guidance for Public Water Systems*, *supra* note 67, at 25 (Ex. 60).

[71] 40 C.F.R. § 141.86(b)(2).

[72] *Id.* §§ 141.2, 141.86(b)(2).

[73] Mem. from Miguel Del Toral, U.S. EPA, to Thomas Poy, U.S. EPA, at 2 (June 24, 2015) (attached as Ex. 62).

samples under 'worst-case' conditions,"[74] and goes "against the intent of the monitoring protocol, since it changes the normal water use of the homeowners in the sample."[75]

Flint's water system is violating the Lead and Copper Rule's reporting requirements by representing to MDEQ that Flint's monitoring practices are in compliance with the Rule. The City's water system did not provide documentation to MDEQ justifying its selection of new sample sites in the January–June 2015 monitoring period, and, upon information and belief, is not accurately reporting information concerning whether sampled sites meet required regulatory criteria.[76]

The Lead and Copper Rule also requires Flint's water system to notify each resident whose tap water was sampled of the lead results.[77] Upon information and belief, Flint has failed and continues to fail to properly notify all residents whose tap water was tested for lead of the individual monitoring results.

B. Flint's water system has failed to maintain optimal corrosion-control treatment

The Lead and Copper Rule required all large public water systems, including Flint's water system, to install an "optimal corrosion control treatment" program by January 1, 1997.[78] After a system has optimized its corrosion-control treatment, the regulations require the system to "continue to operate and maintain optimal corrosion control treatment."[79] Since April 2014, Flint's water system has not maintained an optimal corrosion-control treatment program. Historically, the water system complied with the corrosion-control requirements by purchasing treated water from Detroit. When Flint switched its water source to the Flint River in April 2014, it did nothing to treat the Flint River water to control corrosion. This failure to maintain optimized corrosion control violates the Lead and Copper Rule.

Although Flint's water system has resumed its purchase of treated water from Detroit, it has not disavowed its erroneous interpretation of the Lead and Copper Rule's corrosion-control requirements. Nor has it committed to maintaining optimized corrosion control when it switches water sources again this summer to the KWA pipeline. Flint's water system's failure to maintain an optimized corrosion-control treatment program is likely to recur in the future.

---

[74] *Id.*

[75] Letter from Cynthia Dougherty, U.S. EPA, to Ralph Scott, Alliance for Healthy Homes (Sept. 12, 2008) (attached as Ex. 63).

[76] *See* 40 C.F.R. § 191.90(a)(1)(i), (a)(1)(v); *supra* pp. 11-12.

[77] 40 C.F.R. § 141.85(d)(1).

[78] *Id.* § 141.81(d)(4).

[79] *Id.* § 141.82(g).

III. The State of Michigan's failure to maintain a schools testing and remediation program violates the Safe Drinking Water Act

The Act requires each state to establish a program "to assist" schools and day care centers in "testing for, and remedying, lead contamination in drinking water."[80] Test results must be made available at schools, with notification to parents and teachers.[81] Michigan, upon information and belief, does not maintain a program for school lead testing, remediation, and notification.[82] Accordingly, Governor Snyder and MDEQ Director Wyant are presently in violation of the Act's schools provision.[83]

IV. Intent to Sue

The City of Flint and Michigan state officials have been and continue to be in violation of the Lead and Copper Rule's requirements for monitoring and sampling tap water for lead, notifying the public of and reporting to the State tap-water monitoring results, and corrosion control. Governor Snyder and MDEQ Director Dan Wyant are in violation of the Act's requirement to maintain a program to assist Michigan schools with testing and remediating lead in school drinking water. These violations are likely to continue and to recur in the future absent a judicial decree ordering City and State officials to comply with the Act. If the City of Flint and the Michigan state officials identified above fail to cure their noncompliance with the Act within sixty days, Concerned Pastors for Social Action, Melissa Mays, ACLU of Michigan, and NRDC will file suit in federal district court seeking declaratory relief, injunctive relief, and litigation costs, as appropriate.

The name, address, and telephone number of each person giving notice pursuant to this letter are:

Concerned Pastors for Social Action
2200 Forrest Hill
Flint, MI 48504
(810) 394-6787
Attention: Pastor Allen Overton

---

[80] 42 U.S.C. § 300j-24(d)(1).

[81] *Id.* § 300j-24(d)(2).

[82] Although MDEQ recently announced "an education campaign" to help Michigan schools learn how to test their water for lead, MDEQ has yet to release the details of this effort, including whether it will offer the kind of assistance with testing, remediation, and notification contemplated by the Safe Drinking Water Act. *See* Higgins, *Michigan to launch lead education effort statewide*, *supra* note 44 (Ex. 51).

[83] MDEQ has primary enforcement authority in Michigan for the Safe Drinking Water Act. *See* MDEQ, Drinking Water, http://www.michigan.gov/deq/0,4561,7-135-3313_3675---,00.html (last visited Nov. 13, 2015) (attached as Ex. 64).

Melissa Mays
3714 Beecher Road
Flint, MI 48503

American Civil Liberties Union of Michigan
2966 Woodward Avenue
Detroit, MI 48103
(313) 578-6814
Attention: Michael Steinberg

Natural Resources Defense Council
1152 15th Street, NW, Suite 300
Washington, DC 20005
(202) 289-2385
Attention: Dimple Chaudhary

Do not hesitate to contact us if you would like to discuss this matter.

Respectfully,

Dimple Chaudhary
Natural Resources Defense Council
1152 15th Street, NW, Suite 300
Washington, DC 20005
(202) 289-2385

Sarah Tallman
Anjali Waikar
Evan Feinauer
Natural Resources Defense Council
20 North Wacker Drive, Suite 1600
Chicago, IL 60606
(312) 651-7918

Counsel for Concerned Pastors for Social Action, Melissa Mays, and Natural Resources Defense Council

Michael Steinberg
Brooke Tucker
American Civil Liberties Union of Michigan
2966 Woodward Avenue
Detroit, MI 48103
(313) 578-6814

Counsel for American Civil Liberties Union of Michigan

Enclosure

cc:

Administrator Gina McCarthy
U.S. EPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, NW
Mail Code: 1101A
Washington, DC 20460
McCarthy.gina@Epa.gov

Regional Administrator Susan Hedman
U.S. EPA Region 5
77 West Jackson Boulevard
Mail Code: R-19J
Chicago, IL 60604
Hedman.susan@Epa.gov

Attorney General Bill Schuette
State of Michigan
G. Mennen Williams Building, 7th Floor
525 W. Ottawa Street
P.O. Box 30212
Lansing, MI 48909
miag@michigan.gov

From: Redford, James (GOV)
Sent: Tuesday, December 29, 2015 1:54 PM
To: Holland, Meegan (GOV)
Subject: Re: Here's what's going to executive staff

Ok. Let me know
When I can send.

Thx ?

J

Sent from my iPhone

On Dec 29, 2015, at 1:48 PM, Holland, Meegan (GOV) <HollandM2@michigan.gov> wrote:

> This would be the better version to share with your AG counterpart – it's Jarrod's note to executive staff that will go out soon. - Meegan
>
> Team,
>
> As you are aware, we have been working closely with the independent task force that has been reviewing state, local and federal actions regarding the serious health issues related to water in Flint.
>
> Although the task force's final report is not yet complete, members have made the Governor aware of some interim findings, and there are interim steps the Governor has decided to take immediately in order to restore trust in how we in state government keep residents safe and informed.
>
> As part of this process, Dan Wyant, director of the Department of Environmental Quality, has offered his resignation, and Governor has reluctantly determined to accept it. There are likely to be other personnel changes in MDEQ as well.
>
> I want to thank Dan for his service. He has been the DEQ director since the start of the administration, and previously headed the Agriculture Department under both Gov. Engler and Gov. Granholm. He is passionate about public service and protecting our state's environment.
>
> The situation in Flint is serious and challenging. We will continue work closely with the task force and city leaders as we move forward, committed to protecting the health of people living in Flint and around our state.
>
> Sincerely,
>
> Jarrod Agen
>
> Meegan Holland
> Director of Communications for Gov. Rick Snyder

Office: 517-335-6397
[redacted]
Twitter: @meholland

From: Redford, James (GOV)
Sent: Tuesday, December 29, 2015 2:13 PM
To: Schneider, Matthew (AG); Isaacs, Carol (AG)
Subject: Fwd: Changes in Administration

Carol and Matthew.

The attached was just sent to our Senior Staff and Dept heads.

Jim

Sent from my iPhone

Begin forwarded message:

> **From:** "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>
> **Date:** December 29, 2015 at 2:02:57 PM EST
> **To:** Executive Office All <ExecutiveOfficeAll@michigan.gov>
> **Subject: Changes in Administration**
>
> Team,
>
> As you are aware, we have been working closely with the independent task force that has been reviewing state, local and federal actions regarding the serious health issues related to water in Flint.
>
> Although the task force's final report is not yet complete, members have made the Governor aware of some interim findings, and there are interim steps the Governor has decided to take immediately in order to restore trust in how we in state government keep residents safe and informed.
>
> As part of this process, Dan Wyant, director of the Department of Environmental Quality, has offered his resignation, and Governor has reluctantly decided to accept it. There are likely to be other personnel changes in MDEQ as well.
>
> I want to thank Dan for his service. He has been the DEQ director since the start of the administration, and previously headed the Agriculture Department under both Gov. Engler and Gov. Granholm. He is passionate about public service and protecting our state's environment.
>
> The situation in Flint is serious and challenging. We will continue to work closely with the task force and city leaders as we move forward, committed to protecting the health of people living in Flint and around our state.
>
> Sincerely,
>
> Jarrod Agen

From: Redford, James (GOV)
Sent: Wednesday, December 30, 2015 7:14 PM
To: Baird, Richard (GOV)
Subject: Re: Attorney Client Work Product (Draft), Privileged and Confidential

Ok. On it.

Sent from my iPhone

On Dec 30, 2015, at 6:56 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:

> Team:
>
> Today Harvey and I met with the Flint Water Task Force. It was a good meeting. People were pleased with the G's statement from the prior day. Captain Kelenske joined us and we had a very good discussion about moving forward with the creation of the Flint Water Crisis Agency Coordinating Committee (FIACC). Tim Becker and Captain Kelenske provided me with a fair amount of input. I also read the City of Flint Incident Action Plan for a State of Emergency which Chris received today (enclosed for those who wish to read it as well). I have distilled all of this into a two page plan that I want your edits and comments on and a one page organizational chart (now presented in the "governor's colors" according to our fine people in Communications). Spoiler alert—I made Captain Kelenske Vice Chair of the whole shebang (with the Colonel's blessing) so Harvey wouldn't get lonely.
>
> Here is my ask of you:
>
> 1) Within 24 (sooner if you can) hours give me your comments and input
> 2) Tomorrow I will turn around a final document for Jarrod to review with the Governor either New Year's Day or Saturday
> 3) Ideally, Governor will approve Harvey sending it to Mayor Weaver Saturday (Sunday latest)
> 4) Mayor needs to know that this is what the Governor wishes to discuss at the meeting January 7 along with financial resources that we still need some estimates on cost from DHHS for
> 5) Meegan and Dave need to noodle how best to get out front with this and change the narrative focus on Monday's Genesee County declaration of emergency
>
> I know we are all working way too hard for what should be a rest and recharge period but I do appreciate everyone's efforts and I know the Boss really does as well.
>
> Regards,
>
> Rich
>
> <A Proposal to Create the Flint Water Inter.docx>
>
> <IA Coord Com Org Chart.jpg>
>
> <IAP Flint Water 2015-12-29.pdf>

From: Redford, James (GOV)
Sent: Wednesday, December 30, 2015 7:43 PM
To: Baird, Richard (GOV)
Cc: Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Kelenske, Chris (MSP); Holland, Meegan (GOV); Murray, David (GOV); Becker, Timothy (DHHS); Creagh, Keith (DNR); Roberts, John (DTMB); Etue, Kriste (MSP); Lyon, Nick (DHHS)
Subject: Re: Attorney Client Work Product (Draft), Privileged and Confidential

I would respectfully suggest:

1. In describing the "almost complete lack of coordination..." simply as "lack of coordination. The descriptors are not necessary for us to get where we need to and may not be RPA.

2. Re the identity of the Chair and vice chair - I of course am a huge fan of our MSP generally and Chris Kelenske specifically as well as Harvey - however - with representatives from the County and City being fully on board - would it be prudent to have a non-state person as co-chair/vice chair? Seems it could help for the participation we will absolutely need to get the process moving together as a team and help minimize the "us" vs. "them" issues.

That is it for now. I am being told it is off to a movie with my wonderful spouse and our son.

I will look at again later and may have more.

Regards,

Jim

Sent from my iPad

On Dec 30, 2015, at 6:56 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:

> Team:
>
> Today Harvey and I met with the Flint Water Task Force. It was a good meeting. People were pleased with the G's statement from the prior day. Captain Kelenske joined us and we had a very good discussion about moving forward with the creation of the Flint Water Crisis Agency Coordinating Committee (FIACC). Tim Becker and Captain Kelenske provided me with a fair amount of input. I also read the City of Flint Incident Action Plan for a State of Emergency which Chris received today (enclosed for those who wish to read it as well). I have distilled all of this into a two page plan that I want your edits and comments on and a one page organizational chart (now presented in the "governor's colors" according to our fine people in Communications). Spoiler alert—I made Captain Kelenske Vice Chair of the whole shebang (with the Colonel's blessing) so Harvey wouldn't get lonely.
>
> Here is my ask of you:
>
> 1) Within 24 (sooner if you can) hours give me your comments and input
> 2) Tomorrow I will turn around a final document for Jarrod to review with the Governor either New Year's Day or Saturday
> 3) Ideally, Governor will approve Harvey sending it to Mayor Weaver Saturday (Sunday latest)

4) Mayor needs to know that this is what the Governor wishes to discuss at the meeting January 7 along with financial resources that we still need some estimates on cost from DHHS for
5) Meegan and Dave need to noodle how best to get out front with this and change the narrative focus on Monday's Genesee County declaration of emergency

I know we are all working way too hard for what should be a rest and recharge period but I do appreciate everyone's efforts and I know the Boss really does as well.

Regards,

Rich

<A Proposal to Create the Flint Water Inter.docx>

<IA Coord Com Org Chart.jpg>

<IAP Flint Water 2015-12-29.pdf>

From: Redford, James (GOV)
Sent: Thursday, December 31, 2015 6:07 AM
To: Kelenske, Chris (MSP); Baird, Richard (GOV); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Holland, Meegan (GOV); Murray, David (GOV); Creagh, Keith (DNR); Roberts, John (DTMB); Etue, Kriste (MSP); Lyon, Nick (DHHS); Becker, Timothy (DHHS)
Subject: Attorney Client Communication - Flint Water Inter Agency Coordinating Committee

Good morning:

I have one final follow up on the make up of the Chairs/Vice Chairs.

I do not of course have any of the experience in Emergency Mgmt situations that Chris and others involved; so ultimately i will defer to others and this will be my last message re this topic.

I understand how we normally want a unified singular chain of command structure which will be able to respond robustly and quickly so that when questions and issues come up answers are provided . This is of course enormously important. It has been my experience in life however, that many times not only is the first response to an issue very important, but the first and second clarifying question before a responsive action is taken is oftentimes equally important.

This is not to say that we should design a bureaucratic model that is committee filled and designed to be slow. To the contrary - it needs to be nimble and strong.

We need to be fully engaged with those we seek to serve. Equal partners. Equal leadership. Equal responsibility. Equal chance to be part of the solution to an important problem. We need our fellow citizens, who will hopefully be our partners in finding a solution, to feel they, their city and their city and community leaders are not just part of the solution but are leading the solution. If the citizens we seek to serve do not feel this way, they are not going to share the information we need to have to fix the problem.

Likewise, We don't know what we don't know.

If we have strong local co-leadership - this will create an environment where we will hopefully be able to ask the needed clarifying follow up question 1 and 2.

we can do all these things with a unified State leadership model. I am just not sure we can do it as well as we will all want to.

That's why I think we we should have a joint team led by a joint leadership cadre.

If this is not possible or desirable, I am sure we will be fully and completely engaged and we will do great. I just think this makes it a little easier in the long run.

That's it.

Rich - You and your squad will make the right call.

Hope every one has a nice New Year and I hope the Spartans do great in their second to last game of the season today.

Jim

Sent from my iPad

Subject: RDS – TAPED Radio interview with WFNT and Jason Cooper
Location: By Phone

Start: Wed 12/9/2015 7:55 AM
End: Wed 12/9/2015 8:05 AM

Recurrence: (none)

Meeting Status: Accepted

Organizer: GovCalendar
Required Attendees: Biehl, Laura (GOV); Brown, Jessica (GOV); Murray, David (GOV)

RDS to call: [redacted]

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- [redacted]
- Flint's emergency manager exit
- Flint water
- [redacted]

Recent articles:
Flint schools slash debt by $11M, but state to review finances under new law (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_school_district_slashes.html
Flint city attorney resigns; new mayor says she expects to name replacement (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/peter_bade_flint_city_attorney.html
Flint Mayor Karen Waver unveils 100-day plan, including audit of city funds (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_mayor_karen_weavers_100-.html
Push to recall Snyder over Flint water crisis stalls (Detroit Free Press)
http://www.freep.com/story/news/local/michigan/2015/12/03/elections-board-rejects-latest-snyder-recall-petition/76712410/
Give Flint $50M to replace lead water pipes (Detroit Free Press)
http://www.freep.com/story/news/columnists/rochelle-riley/2015/11/12/flint-water-sheldon-neeley-michigan-legislature/75610846/

Last interview: 3/10/15 re: Importance of roads ballot proposal that went before voters on May 5.

Notes: Jason Cooper<http://wfnt.com/author/jcooper/> WFNT's News Director and host of Conversations with Jason Cooper. Interview will air during Jason's show from 11-noon.

Market: Flint and Saginaw Metro and online at http://wfnt.com/

Contact: Studio line: 810-743-8446; Back-up: 810-743-8255

Subject: RDS – TAPED Radio interview with WFNT and Jason Cooper
Location: By Phone

Start: Wed 12/9/2015 7:55 AM
End: Wed 12/9/2015 8:05 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: GovCalendar
Required Attendees: Biehl, Laura (GOV); Brown, Jessica (GOV); Murray, David (GOV)

RDS to call: [redacted]

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- [redacted]
- Flint's emergency manager exit
- Flint water
- [redacted]

Recent articles:
Flint schools slash debt by $11M, but state to review finances under new law (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_school_district_slashes.html
Flint city attorney resigns; new mayor says she expects to name replacement (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/peter_bade_flint_city_attorney.html
Flint Mayor Karen Waver unveils 100-day plan, including audit of city funds (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_mayor_karen_weavers_100-.html
Push to recall Snyder over Flint water crisis stalls (Detroit Free Press)
http://www.freep.com/story/news/local/michigan/2015/12/03/elections-board-rejects-latest-snyder-recall-petition/76712410/
Give Flint $50M to replace lead water pipes (Detroit Free Press)
http://www.freep.com/story/news/columnists/rochelle-riley/2015/11/12/flint-water-sheldon-neeley-michigan-legislature/75610846/

Last interview: 3/10/15 re: Importance of roads ballot proposal that went before voters on May 5.

Notes: Jason Cooper<http://wfnt.com/author/jcooper/> WFNT's News Director and host of Conversations with Jason Cooper. Interview will air during Jason's show from 11-noon.

Market: Flint and Saginaw Metro and online at http://wfnt.com/

Contact: Studio line: 810-743-8446; Back-up: 810-743-8255

From: Agen, Jarrod (GOV)
Sent: Tuesday, December 08, 2015 3:48 PM
To: Brown, Jessica (GOV); Bedan, Morgan (GOV)
Cc: Biehl, Laura (GOV)
Subject: RE: 12/9 Radio Briefings

Did we get updated Flint info for him?

From: Brown, Jessica (GOV)
Sent: Tuesday, December 08, 2015 2:56 PM
To: Bedan, Morgan (GOV) <BedanM@michigan.gov>
Cc: Biehl, Laura (GOV) <BiehlL@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: 12/9 Radio Briefings

RDS – LIVE Radio interview with WTCM and Ron Jolly

Time: 7:25 – 7:35 a.m.

RDS to call: [redacted]
Call at 7:24, will go live within one minute

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- [redacted]

Recent articles:
Northern republicans backed road plan (Cheboygan Tribune)
http://www.cheboygannews.com/article/20151110/BLOGS/151109101
County Commissioners wait on pipeline resolution (Petoskey News)
http://www.petoskeynews.com/featured-pnr/county-commissioners-wait-on-pipeline-resolution/article_2b43079f-c4ff-57c2-bb9a-cc145c59d29c.html
Senate leaders: Michigan energy overhaul won't happen in 2015 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/senate_leaders_michigan_energy.html
Utilities stress urgency of Michigan energy overhaul as it spills into 2016 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/utilities_stress_urgency_of_mi.html
Despite Snyder's "pause," Syrian refugees continue to arrive in Michigan (Michigan Radio)
http://michiganradio.org/post/despite-snyder-s-pause-syrian-refugees-continue-arrive-michigan#stream/0

Last interview: 4/30/15 re: Importance of roads ballot proposal that went before voters on May 5.

Market: Traverse City / online http://wtcmradio.com/

Contact: Studio line: 231-947-3479; Back-up [redacted]

RDS – LIVE Radio interview with WSJM and Pat Moody

Time: 7:40 – 7:50 a.m.

RDS to call: [redacted]
Call right at 7:40, live when phone is answered. Stay on line until phone is picked up as Pat is the only one in studio.

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- [redacted]

Recent articles:
Road funding deal to be signed (WSJM)
http://www.wsjm.com/2015/11/10/road-funding-deal-to-be-signed/
Gov. Snyder wants bipartisan group to address (WSJM)
http://www.wsjm.com/2015/12/02/governor-snyder-wants-bipartisan-group-to-address-concerns-over-refugee-screening/
Nesbitt's Energy committee trying to pass energy reform
http://www.wsjm.com/2015/11/05/nesbitts-energy-committee-trying-to-pass-energy-reform-bills-today/
Oil spill, high waves: A Great Lakes Disaster Scenario (Detroit Free Press)
http://www.freep.com/story/news/local/michigan/2015/12/05/enbridge-pipeline-straits-mackinac-oil-spill-waves/76728434/
Gov. Rick Snyder launches statewide tour to promote skilled trades (MLive)
http://www.mlive.com/news/grand-rapids/index.ssf/2015/11/governor_snyder_launches_state.html
County Commissioners wait on pipeline resolution (Petoskey News)
http://www.petoskeynews.com/featured-pnr/county-commissioners-wait-on-pipeline-resolution/article_2b43079f-c4ff-57c2-bb9a-cc145c59d29c.html
Senate leaders: Michigan energy overhaul won't happen in 2015 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/senate_leaders_michigan_energy.html

Last interview: 3/20/15 re: Importance of roads ballot proposal that went before voters on May 5.

Market: St. Joe/Benton Harbor- http://www.wsjm.com/

Contact: Studio line: 269-925-9756; Back-up (Pat's cell): [redacted]

RDS – TAPED Radio interview with WFNT and Jason Cooper

Time: 7:55 – 8:05 a.m.

RDS to call [redacted]
Call right at 7:55, interview is taped.

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- [redacted]
- Flint's emergency manager exit
- Flint water
- [redacted]

Recent articles:

Flint schools slash debt by $11M, but state to review finances under new law (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_school_district_slashes.html
Flint city attorney resigns; new mayor says she expects to name replacement (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/peter_bade_flint_city_attorney.html
Flint Mayor Karen Waver unveils 100-day plan, including audit of city funds (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_mayor_karen_weavers_100-.html
Push to recall Snyder over Flint water crisis stalls (Detroit Free Press)
http://www.freep.com/story/news/local/michigan/2015/12/03/elections-board-rejects-latest-snyder-recall-petition/76712410/
Give Flint $50M to replace lead water pipes (Detroit Free Press)
http://www.freep.com/story/news/columnists/rochelle-riley/2015/11/12/flint-water-sheldon-neeley-michigan-legislature/75610846/

Last interview: 3/10/15 re: Importance of roads ballot proposal that went before voters on May 5.

Notes: Jason Cooper<http://wfnt.com/author/jcooper/> WFNT's News Director and host of Conversations with Jason Cooper. Interview will air during Jason's show from 11-noon.

Market: Flint and Saginaw Metro and online at http://wfnt.com/

Contact: Studio line: 810-743-8446; Back-up: [redacted]

Jessica M. Brown
Communications Representative
Executive Office of Michigan Governor Rick Snyder
O: 517-335-6397
[redacted]
BrownJ53@michigan.gov

From: Agen, Jarrod (GOV)
Sent: Tuesday, December 08, 2015 3:50 PM
To: Biehl, Laura (GOV); Brown, Jessica (GOV)
Subject: FW: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: 2015-12-07 Flint Drinking Water Action Plan Update.pdf; What is a Part Per Billion.pdf

Importance: High

This was last night's update

From: Wyant, Dan (DEQ)
Sent: Monday, December 07, 2015 3:34 PM
To: Scott, Allison (GOV) <scotta12@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Emmitt, Beth (GOV) <emmittb@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>
Cc: Wyant, Dan (DEQ) <WyantD@michigan.gov>; Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>; Edgerton, Shelly (LARA) <EdgertonS1@michigan.gov>; Dykema, Linda D. (DHHS) <DykemaL@michigan.gov>
Subject: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

- Flint Drinking Water Action Plan Update
- Document on What is a Part Per Billion.

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions. I have also added Richard Baird to this weekly email.

Thank you.

Dan Wyant
Director

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

Key Actions:

On December 3, 2015, DHHS released blood lead level testing data. The data covered the time frame between January 1, 2010, and November 13, 2015. The data was broken down by population set and by demographic. The population sets included the state of Michigan as a whole, Genesee County as a whole, and the city of Flint ZIP Codes 48501 to 48507. The demographic sets broke the populations down into the age groups of: "Children younger than 6 Years Old," "Children 6 to 17 Years Old," "Adults 18 Years and Older," and "Total Number of People of All Ages Tested."

On December 3, 2015, the DEQ released the lead in drinking water data and final report for Eisenhower Elementary School. The findings in the report were very similar in nature to those found in the report for Freeman Elementary School. There were a number of fixtures and plumbing immediately adjacent to fixtures that were imparting lead into the water. The report recommends replacement of these fixtures and related plumbing.

On December 4 and 5, 2015, staff from the DEQ and DLARA conducted a plumbing evaluation and subsequent sampling of the fixtures used for drinking water consumption at Potter Elementary School in Flint. There were a total number of 288 samples taken at 57 different locations throughout the school.

Positions:

There are no new positions to report since last week.

Concerns:

There are no new concerns to report since last week.

Significant Events:

On November 30, 2015, Director Dan Wyant and George Krisztian met with water quality expert Dr. Joan Rose of Michigan State University. The purpose of the meeting was to discuss the situation in Flint and to seek guidance on approaches for addressing the issue. Dr. Rose expressed that she felt there were three different fronts necessary to address the issue. These were to create a "Trust Plan," a "Communications Plan," and a plan to "Get the lead out." Dr. Rose provided several different examples of communities that had undergone similar challenges and what approaches worked and what approaches did not.

On December 3, 2015, representatives from the Governor's office, DEQ, and Office of Urban Initiatives met with Flint City Mayor Karen Weaver and members of her transition team. The purpose of the meeting was primarily introductory in nature, and the conversations were at a high level discussing the needs of the city as well as how communications with the residents of the city could be improved. There was also discussion of the lead testing results, both for home owners and in the schools. There was particular interest in the sampling protocol that was used to obtain samples in the schools. Overall, the conversation was very positive, with everyone agreeing that a coordinated effort was necessary to be able to effectively address the lead issue.

On December 3, 2015, Director Dan Wyant was interviewed by Lori Jane Gliha for a segment on America Tonight. The questions mainly focused on what had happened in the past and were tough. The responses echoed the message that the DEQ empathizes with the residents of Flint; we are committed to bringing about a resolution; we have a plan; we are moving forward; and we recognize that we need to rebuild trust in the community.

On December 4, 2015, representatives of the DEQ (Jim Sygo, Karen Tommasulo, and George Krisztian) met with Flint Mayor Karen Weaver and other city officials for the weekly coordination meeting. Calling into the meeting were representatives of DHHS and DLARA. The blood lead data that DHHS released the previous day was discussed, and Dr. Eden Wells provided detailed comment on the data. There was also detailed discussion regarding the Revolving Loan Fund and how it might be utilized to help address the issue of lead service line replacement.

On December 4, 2015, representatives of the DEQ (Jim Sygo, Karen Tommasulo, and George Krisztian) met with Flint Community Schools Superintendent Bilal Tawwab. The main topic of discussion was a review of the lead in drinking water data obtained to date. Superintendent Tawwab was informed that the schools, in general, were all following a similar pattern in that the sources of lead appear to be coming primarily from fixtures and the adjacent plumbing. Superintendent Tawwab indicated that his office has already made the decision to follow all recommendations in the reports. It was also agreed that a monthly meeting would be helpful to ensure that the process kept moving forward. In addition, there was discussion about a document that the DEQ would create that would explain what constituted a part per billion or ppb. A draft document without graphics was given to Superintendent Tawwab, and he indicated that the final version would be a very helpful aid to parents and students.

Changes from Previous Report:

- Draft sampling instructions were developed for lead and copper compliance sampling, incorporating comments by the U.S. Environmental Protection Agency (EPA). The revised document is being sent back to the EPA for final comment.

- DEQ staff met with DHHS staff to assist with development of a phosphate fact sheet. DHHS is the lead on this and will be submitting a revised version to the DEQ for final comment. This document is being developed to answer home owner questions regarding the safety of the addition of phosphate to the water received by the city of Flint from Detroit.

- Staff from the DEQ provided a "Standby Operations" letter to the city of Flint. The purpose of the letter is to define what practices are to be utilized in the event of an emergency.

- Staff from the DEQ followed up with the city of Flint on the status of the installation of corrosion control treatment. Pumps were installed on November 30, 2015. It is anticipated that the startup of the system will begin during the week of December 7, 2015.

Other Item:

Attached is the draft document, "What is a Part per Billion."

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: [redacted]
December 7, 2015

What is a Part per Billion?

1 dollar in a stack of 1 dollar bills 62 miles high

1 dime in a stack of dimes 800 miles high

1 penny in 10 million dollars

1 second in 32 years

1 foot of a trip to the moon

1 inch of a trip from the North Pole to the South Pole

1 apple in over 10,000 truckloads

1 drop of water in 850 aquariums 20 gallons in size

1 single pitch from every game, of every major league baseball team, played over the course of 700 seasons

From: LaHaie, Alyssa (GOV)
Sent: Thursday, December 17, 2015 1:27 PM
To: Brown, Jessica (GOV)
Subject: Flint Water info from 2013

This is all I could find that seemed even remotely relevant after expanding the search to all of 2013. I highlighted what I thought could possibly be useful.

Flint ending Detroit water contract, DWSD looking at its options (Michigan Radio)
The city of Flint is dumping its contract with the Detroit Water and Sewerage Department. Flint emergency manager Ed Kurtz signed a contract today to get the city's water from a new pipeline that's being built from Lake Huron to Genesee County. Officials with Detroit's system made a final offer to try and keep Flint's business. But Kurtz says the numbers were "unreliable."

Flint City Council approves resolution to buy water from Karegnondi, state approval still needed (Mlive)
Flint is one step closer to getting its water from Lake Huron as part of the Karegnondi Water Authority. The vote, approved 7-1 at the Flint City Council meeting Monday, March 25, may have set in motion the end to Flint paying to get its water from Detroit.

"Going with Karegnondi is the best decision. We have no opinion on the economics of the decision," said Rebecca Fedewa, Flint River Watershed Coalition executive director. "If we start drawing water out of the Flint River, we are at risk of having to start releasing water from our reservoirs."

Flint, Genesee County officials huddle on Detroit water proposal (Mlive)
Flint and county officials are meeting this morning to consider a proposal for future water purchases from the city of Detroit. And while they aren't passing judgment on what's been presented, Mayor Dayne Walling said today that "there does not appear to be a fixed rate" for the life of the 30-year contract Detroit is seeking.

Flint residents seeking water bill relief may qualify for new poverty exemption (Mlive)
hose in Flint struggling to pay their water bill may be eligible for some financial relief under a new program. The "water poverty exemption" was unveiled during emergency manager Ed Kurtz's news conference Wednesday, April 10. The city will waive the "ready to use" fee of $53.78 that is charged to every customer each month.

Flint River now an option for drinking water following Detroit's termination of contract (Mlive)
The Flint River was not a viable option to provide drinking water to city residents when the water relationship between Flint and Detroit was stable. But river water might be used temporarily as the city's water supply now that Flint signed an agreement with the Karegnondi Water Authority and will get up to 18 million gallons per day of raw water in 2016 from Lake Huron

"I didn't think the city of Flint did its due diligence to the Flint River," Nolden said. "It's not that I'm against the KWA, it's that we didn't get all the information."
The Flint River hadn't been an option, city officials previously said, because upgrades to Flint's water plant would be too expensive, the river didn't provide enough capacity to serve Flint residents' water needs and the Michigan Department of Environmental Quality would not allow it.
Flint River water is treated by the water plant only about four times a year under a state mandate to make sure the facility is operational as the emergency backup source of water for Flint and Genesee County.

Flint to spend $171,000 for engineering to treat Flint River water while KWA pipeline is built (Mlive)

The city will spend $171,000 to get Flint's water plant up and running on a continual basis, with the potential to use the Flint River as the primary drinking water source for about two years while the Karegnondi Water Authority pipeline is built. The engineering work completed by Flint-based Lockwood, Andrews & Newnam, Inc. also will allow the plant to be used to convert raw water from Lake Huron delivered via the KWA pipeline to drinkable water in Flint.

From: Brown, Jessica (GOV)
Sent: Tuesday, December 08, 2015 2:56 PM
To: Bedan, Morgan (GOV)
Cc: Biehl, Laura (GOV); Agen, Jarrod (GOV)
Subject: 12/9 Radio Briefings

RDS – LIVE Radio interview with WTCM and Ron Jolly

Time: 7:25 – 7:35 a.m.

RDS to call: [redacted]
Call at 7:24, will go live within one minute

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- [redacted]

Recent articles:
Northern republicans backed road plan (Cheboygan Tribune)
http://www.cheboygannews.com/article/20151110/BLOGS/151109101
County Commissioners wait on pipeline resolution (Petoskey News)
http://www.petoskeynews.com/featured-pnr/county-commissioners-wait-on-pipeline-resolution/article_2b43079f-c4ff-57c2-bb9a-cc145c59d29c.html
Senate leaders: Michigan energy overhaul won't happen in 2015 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/senate_leaders_michigan_energy.html
Utilities stress urgency of Michigan energy overhaul as it spills into 2016 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/utilities_stress_urgency_of_mi.html
Despite Snyder's "pause," Syrian refugees continue to arrive in Michigan (Michigan Radio)
http://michiganradio.org/post/despite-snyder-s-pause-syrian-refugees-continue-arrive-michigan#stream/0

Last interview: 4/30/15 re: Importance of roads ballot proposal that went before voters on May 5.

Market: Traverse City / online http://wtcmradio.com/

Contact: Studio line: 231-947-3479; Back-up: [redacted]

RDS – LIVE Radio interview with WSJM and Pat Moody

Time: 7:40 – 7:50 a.m.

RDS to call: [redacted]
Call right at 7:40, live when phone is answered. Stay on line until phone is picked up as Pat is the only one in studio.

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- [redacted]

Recent articles:
Road funding deal to be signed (WSJM)
http://www.wsjm.com/2015/11/10/road-funding-deal-to-be-signed/
Gov. Snyder wants bipartisan group to address (WSJM)
http://www.wsjm.com/2015/12/02/governor-snyder-wants-bipartisan-group-to-address-concerns-over-refugee-screening/
Nesbitt's Energy committee trying to pass energy reform
http://www.wsjm.com/2015/11/05/nesbitts-energy-committee-trying-to-pass-energy-reform-bills-today/
Oil spill, high waves: A Great Lakes Disaster Scenario (Detroit Free Press)
http://www.freep.com/story/news/local/michigan/2015/12/05/enbridge-pipeline-straits-mackinac-oil-spill-waves/76728434/
Gov. Rick Snyder launches statewide tour to promote skilled trades (MLive)
http://www.mlive.com/news/grand-rapids/index.ssf/2015/11/governor_snyder_launches_state.html
County Commissioners wait on pipeline resolution (Petoskey News)
http://www.petoskeynews.com/featured-pnr/county-commissioners-wait-on-pipeline-resolution/article_2b43079f-c4ff-57c2-bb9a-cc145c59d29c.html
Senate leaders: Michigan energy overhaul won't happen in 2015 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/senate_leaders_michigan_energy.html

Last interview: 3/20/15 re: Importance of roads ballot proposal that went before voters on May 5.

Market: St. Joe/Benton Harbor- http://www.wsjm.com/

Contact: Studio line: 269-925-9756; Back-up (Pat's cell): [redacted]

RDS – TAPED Radio interview with WFNT and Jason Cooper

Time: 7:55 – 8:05 a.m.

RDS to call [redacted]
Call right at 7:55, interview is taped.

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- [redacted]
- Flint's emergency manager exit
- Flint water

- [redacted]

Recent articles:
Flint schools slash debt by $11M, but state to review finances under new law (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_school_district_slashes.html
Flint city attorney resigns; new mayor says she expects to name replacement (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/peter_bade_flint_city_attorney.html
Flint Mayor Karen Waver unveils 100-day plan, including audit of city funds (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_mayor_karen_weavers_100-.html
Push to recall Snyder over Flint water crisis stalls (Detroit Free Press)
http://www.freep.com/story/news/local/michigan/2015/12/03/elections-board-rejects-latest-snyder-recall-petition/76713410/
Give Flint $50M to replace lead water pipes (Detroit Free Press)
http://www.freep.com/story/news/columnists/rochelle-riley/2015/11/12/flint-water-sheldon-neeley-michigan-legislature/75610846/

Last interview: 3/10/15 re: Importance of roads ballot proposal that went before voters on May 5.

Notes: Jason Cooper<http://wfnt.com/author/jcooper/> WFNT's News Director and host of Conversations with Jason Cooper. Interview will air during Jason's show from 11-noon.

Market: Flint and Saginaw Metro and online at http://wfnt.com/

Contact: Studio line: 810-743-8446; Back-up: [redacted]

Jessica M. Brown
Communications Representative
Executive Office of Michigan Governor Rick Snyder
O: 517-335-6397
[redacted]
BrownJ53@michigan.gov

From: Brown, Jessica (GOV)
Sent: Tuesday, December 08, 2015 3:49 PM
To: Agen, Jarrod (GOV); Bedan, Morgan (GOV)
Cc: Biehl, Laura (GOV)
Subject: RE: 12/9 Radio Briefings

Brad and Jen are working on it. Spoke to them both right after out comms. meeting. I just followed up asking for an ETA.

Morgan is holding the briefing for now.

From: Agen, Jarrod (GOV)
Sent: Tuesday, December 08, 2015 3:48 PM
To: Brown, Jessica (GOV) <BrownJ53@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>
Cc: Biehl, Laura (GOV) <BiehlL@michigan.gov>
Subject: RE: 12/9 Radio Briefings

Did we get updated Flint info for him?

From: Brown, Jessica (GOV)
Sent: Tuesday, December 08, 2015 2:56 PM
To: Bedan, Morgan (GOV) <BedanM@michigan.gov>
Cc: Biehl, Laura (GOV) <BiehlL@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: 12/9 Radio Briefings

RDS – LIVE Radio interview with WTCM and Ron Jolly

Time: 7:25 – 7:35 a.m.

RDS to call: [redacted]
Call at 7:24, will go live within one minute

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- [redacted]

Recent articles:
Northern republicans backed road plan (Cheboygan Tribune)
http://www.cheboygannews.com/article/20151110/BLOGS/151109101
County Commissioners wait on pipeline resolution (Petoskey News)
http://www.petoskeynews.com/featured-pnr/county-commissioners-wait-on-pipeline-resolution/article_2b43079f-c4ff-57c2-bb9a-cc145c59d29c.html
Senate leaders: Michigan energy overhaul won't happen in 2015 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/senate_leaders_michigan_energy.html

Utilities stress urgency of Michigan energy overhaul as it spills into 2016 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/utilities_stress_urgency_of_mi.html
Despite Snyder's "pause," Syrian refugees continue to arrive in Michigan (Michigan Radio)
http://michiganradio.org/post/despite-snyder-s-pause-syrian-refugees-continue-arrive-michigan#stream/0

Last interview: 4/30/15 re: Importance of roads ballot proposal that went before voters on May 5.

Market: Traverse City / online http://wtcmradio.com/

Contact: Studio line: 231-947-3479; Back-up: [redacted]

RDS – LIVE Radio interview with WSJM and Pat Moody

Time: 7:40 – 7:50 a.m.

RDS to call: [redacted]
Call right at 7:40, live when phone is answered. Stay on line until phone is picked up as Pat is the only one in studio.

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:
- [redacted]

Recent articles:
Road funding deal to be signed (WSJM)
http://www.wsjm.com/2015/11/10/road-funding-deal-to-be-signed/
Gov. Snyder wants bipartisan group to address (WSJM)
http://www.wsjm.com/2015/12/02/governor-snyder-wants-bipartisan-group-to-address-concerns-over-refugee-screening/
Nesbitt's Energy committee trying to pass energy reform
http://www.wsjm.com/2015/11/05/nesbitts-energy-committee-trying-to-pass-energy-reform-bills-today/
Oil spill, high waves: A Great Lakes Disaster Scenario (Detroit Free Press)
http://www.freep.com/story/news/local/michigan/2015/12/05/enbridge-pipeline-straits-mackinac-oil-spill-waves/76728434/
Gov. Rick Snyder launches statewide tour to promote skilled trades (MLive)
http://www.mlive.com/news/grand-rapids/index.ssf/2015/11/governor_snyder_launches_state.html
County Commissioners wait on pipeline resolution (Petoskey News)
http://www.petoskeynews.com/featured-pnr/county-commissioners-wait-on-pipeline-resolution/article_2b43079f-c4ff-57c2-bb9a-cc145c59d29c.html
Senate leaders: Michigan energy overhaul won't happen in 2015 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/senate_leaders_michigan_energy.html

Last interview: 3/20/15 re: Importance of roads ballot proposal that went before voters on May 5.

Market: St. Joe/Benton Harbor- http://www.wsjm.com/

Contact: Studio line: 269-925-9756; Back-up (Pat's cell) [redacted]

RDS – TAPED Radio interview with WFNT and Jason Cooper

Time: 7:55 – 8:05 a.m.

RDS to call [redacted]
Call right at 7:55, interview is taped.

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- [redacted]
- Flint's emergency manager exit
- Flint water
- [redacted]

Recent articles:
Flint schools slash debt by $11M, but state to review finances under new law (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_school_district_slashes.html
Flint city attorney resigns; new mayor says she expects to name replacement (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/peter_bade_flint_city_attorney.html
Flint Mayor Karen Waver unveils 100-day plan, including audit of city funds (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_mayor_karen_weavers_100-.html
Push to recall Snyder over Flint water crisis stalls (Detroit Free Press)
http://www.freep.com/story/news/local/michigan/2015/12/03/elections-board-rejects-latest-snyder-recall-petition/76712410/
Give Flint $50M to replace lead water pipes (Detroit Free Press)
http://www.freep.com/story/news/columnists/rochelle-riley/2015/11/12/flint-water-sheldon-neeley-michigan-legislature/75610846/

Last interview: 3/10/15 re: Importance of roads ballot proposal that went before voters on May 5.

Notes: Jason Cooper<http://wfnt.com/author/jcooper/> WFNT's News Director and host of Conversations with Jason Cooper. Interview will air during Jason's show from 11-noon.

Market: Flint and Saginaw Metro and online at http://wfnt.com/

Contact: Studio line: 810-743-8446; Back-up [redacted]

Jessica M. Brown
Communications Representative
Executive Office of Michigan Governor Rick Snyder
O: 517-335-6397
[redacted]
BrownJ53@michigan.gov

From: Brown, Jessica (GOV)
Sent: Tuesday, December 08, 2015 3:54 PM
To: Agen, Jarrod (GOV); Biehl, Laura (GOV)
Subject: RE: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

Jen/DHHS -- are working on the updated numbers regarding how many have been tested since the Oct. 1 action plan was implemented and current instructions for local residents regarding testing needs and filters. Sounds like the updated numbers is the hold-up. She'll send ASAP.

Brad/DEQ -- is sending some talking points to accompany the report. Should have this soon

---

From: Agen, Jarrod (GOV)
Sent: Tuesday, December 08, 2015 3:50 PM
To: Biehl, Laura (GOV) <BiehlL@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>
Subject: FW: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

This was last night's update

From: Wyant, Dan (DEQ)
Sent: Monday, December 07, 2015 3:34 PM
To: Scott, Allison (GOV) <scotta12@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Emmitt, Beth (GOV) <emmittb@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>
Cc: Wyant, Dan (DEQ) <WyantD@michigan.gov>; Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>; Edgerton, Shelly (LARA) <EdgertonS1@michigan.gov>; Dykema, Linda D. (DHHS) <DykemaL@michigan.gov>
Subject: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

- Flint Drinking Water Action Plan Update
- Document on What is a Part Per Billion.

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions. I have also added Richard Baird to this weekly email.

Thank you.

Dan Wyant
Director

From: Brown, Jessica (GOV)
Sent: Tuesday, December 08, 2015 5:04 PM
To: Bedan, Morgan (GOV); Agen, Jarrod (GOV)
Cc: Biehl, Laura (GOV)
Subject: RE: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: Flint Update for WFNT.docx

Morgan/Jarrod:

Attached is the update for Flint water and the WFNT interview. Includes testing numbers, steps families a can take to reduce lead exposure (i.e. free testing hotline, where to get filters, etc.). Also touches on the top three items and where they stand from the Governor's 10-point action plan.

From: Agen, Jarrod (GOV)
Sent: Tuesday, December 08, 2015 3:50 PM
To: Biehl, Laura (GOV) <BiehlL@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>
Subject: FW: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

This was last night's update

From: Wyant, Dan (DEQ)
Sent: Monday, December 07, 2015 3:34 PM
To: Scott, Allison (GOV) <scotta12@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Emmitt, Beth (GOV) <emmittb@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>
Cc: Wyant, Dan (DEQ) <WyantD@michigan.gov>; Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>; Edgerton, Shelly (LARA) <EdgertonS1@michigan.gov>; Dykema, Linda D. (DHHS) <DykemaL@michigan.gov>
Subject: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

- Flint Drinking Water Action Plan Update
- Document on What is a Part Per Billion.

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions. I have also added Richard Baird to this weekly email.

Thank you.

Dan Wyant
Director

Flint Fast Facts for WFNT interview

From: Comms – Jess Brown
DEQ – Brad Wurfel
DHHS – Jennifer Smith

Date: December 8, 2015

---

1. **How many people have been tested since Oct. 1 Flint Water Action Plan was implemented?**
    - Total of 1,836 tested, 39 elevated results
        - Children 0 – 5: 806 tested
        - Children 6 – 17: 525 tested
        - Adults: 505 tested

2. **What are the most recent recommendations to protect your family from lead exposure?**
    - Protecting your family from lead in the water:
        - Get your water tested for lead. It's free. Call (810) 787-6537 to learn more.
        - Use a water filter in your home. MDHHS continues to provide free water filters and replacement cartridges to Flint residents at four locations, including the MDHHS Flint offices and the Genesee County Community Action Resource Department.
        - Run only cold water through the filter.
        - If you do not have a water filter, use bottled water for drinking and mixing formula.
        - Use filtered or bottled water for drinking (including making coffee, drink mixes, juice, baby formula), and cooking (even if you boil the water, the lead will stay in the water and food).
        - If you have to use unfiltered water for drinking or cooking, run the tap for five minutes before using the water
    - Testing children:
        - Children who live in the city of Flint should be tested for lead exposure. This should be done as soon as possible.
        - The best place to get your child's blood lead test is your doctor's office. Contact your primary care provider.
        - Children can also get a free lead test at the Genesee County Health Department. For help with transportation, call 2-1-1.
    - Safe cleaning:
        - Safe cleaning is important. Keeping your home clean and safe from lead hazards will help to protect your family.
        - Buildings built before 1978 could have lead paint in them. Use wet paper towels to clean up paint chips and dust in these older buildings. Be sure to clean around windows, play areas, and floors.
        - Wash hands and toys often with soap and water.
        - You can use unfiltered tap water to wipe down countertops, mop floors, and wash clothes

The DEQ continues implementing the Governor's 10-point action plan to protect kids and families in Flint:

1. SCHOOLS TESTING

- The Governor's plan commits that DEQ will test water in every Flint school. To date, 8 schools in Flint have undergone a thorough inspection of their plumbing. Crews from the state are completing one to two schools each weekend.
- The story has been the same in each school inspected: lead exposure has been limited to old drinking fountains and faucets that should have been changed out years ago. When these fixtures are run for a couple minutes, lead presence drops to safe levels. If / when these fixtures are removed, it will address the lead exposure in schools.
- DEQ has not identified lead in the deeper plumbing of the schools. That's great news. It means fixing the issue will be comparatively inexpensive and quick.

2. COMMUNITY WATER TESTING
    - Since September, more than 500 residents have taken advantage of free home water sampling through the DEQ lab. Results are updated regularly on the DEQ web site, www.michigan.gov/FLINTWATER.
    - Residents are encouraged to continue taking advantage of this free service, but also are encouraged to get kids tested for blood lead levels.

3. LEAD SERVICE LINE REPLACEMENT

- The only way to remove the threat of lead exposure in drinking water is to remove sources like old faucets and lead service lines. The DEQ is working with the city to develop a long-term plan for removing the service lines. This is complicated because the service line is the portion that runs from the city system to the residence. It's the part that is mostly on private property and is generally considered the customer's responsibility.
- DEQ worked with Congressman Kildee to get EPA approval to use Revolving Loan Fund dollars to accomplish lead service line replacement.

OTHER VARIOUS ISSUES:

- Cong. Kildee has renewed calls for loan forgiveness in Flint. The city owes the state approximately $20.8 million for past loans, and they're scheduled to be paid off in 2024. DEQ cannot forgive old loans; we can, however, build loan forgiveness into new loans. Forgiveness is presently capped at 30 percent on new loans.
- City has called on DEQ to pay for fixes to the broader water distribution system on the idea that running river water through the system for 14 months ruined it. That's an unproven statement. The system has been in a serious state of disrepair for many years. We have not addressed this issue in the media. We are focused on the Governor's plan.
- Lawmakers have called for the state to create a fund to provide wraparound services for the (Kildee says 7,000) kids exposed to Flint water situation. Don't know where the 7,000 number came from. DHHS has numbers of kids who actually have elevated blood lead levels. Again, not an issue we've addressed or plan to.

From: Kennedy, Jordan (GOV)
Sent: Thursday, November 05, 2015 12:18 PM
To: Agen, Jarrod (GOV)
Cc: Brown, Jessica (GOV)
Subject: FW: DEQ Seeks Gov. Signature- Letter to EPA - Flint Safe Drinking Water POC - NEEDED BY Tues. 11.10.15
Attachments: 11.2.15 DEQ USEPA Flint Water Task Force.doc; Information Transmittal USEPA Task Force 11-3-15.pdf

Importance: High

FYI here is the letter that we talked about yesterday for your review. Copying Jess as well.

Thanks,

Jordan Kennedy
Communications Representative
Executive Office of Governor Rick Snyder
Phone: 517.335.6397

From: Hall, Jean (GOV)
Sent: Tuesday, November 03, 2015 4:44 PM
To: Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Mcbride, Bill (GOV) <mcbrideb@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Walsh, John (GOV) <WalshJ@michigan.gov>
Cc: Scott, Allison (GOV) <scotta12@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Khouri, Claire (GOV) <KhouriC@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Brown, Eric (GOV) <BrownE15@michigan.gov>; Blackwell, Rob (GOV) <Blackwellr2@michigan.gov>; Arwood, Cheri (GOV) <ArwoodC@michigan.gov>; Hansen, Rachel (GOV) <hansenr3@michigan.gov>; Taylor, Nicole (GOV) <TaylorN7@michigan.gov>; Brownfield, Michael (GOV) <BrownfieldM2@michigan.gov>; Redford, James (GOV) <RedfordJ@michigan.gov>; Wisniewski, Wendy (GOV) <wisniewskiw@michigan.gov>; Thomet, Ruth (GOV) <ThometR@michigan.gov>; Stoken, Laura (GOV) <StokenL@michigan.gov>; Kennedy, Jordan (GOV) <KennedyJ4@michigan.gov>; Lukasik, Liz (GOV) <LukasikL@michigan.gov>; Weber, Travis (GOV) <WeberT7@michigan.gov>; Ayers, Angela (GOV) <AyersA@michigan.gov>
Subject: DEQ Seeks Gov. Signature- Letter to EPA - Flint Safe Drinking Water POC - NEEDED BY Tues. 11.10.15
Importance: High

Hello All,

DEQ is seeking the Governor's signature on the attached letter to Dr. Susan Hedman, Regional Administrator, USEPA, Region 5. The letter designates Jim Sygo, Chief Deputy Director, MDEQ as the DEQ point person for the USEPA – Region 5 Flint Safe Drinking Water Task Force.

For your reference, DEQ provided the attached Transmittal Form , along with a copy of the October 21 Flint Drinking Water Action Plan Update which includes a summary about the conference call with USEPA and MDEQ where the USEPA requested this letter. The attachment also includes the USEPA's October 16 press release about the establishment of the Task Force (see yellow highlighted text in both attachments)

Your approval, input, and/or changes are needed by EOB by **Tues. 11.10.15.**

If you have any questions or need additional background information, please let me know.

Thank you.

Jean Hall
Executive Assistant
Office of Strategic Policy
Executive Office of Governor Rick Snyder
Hall116@michigan.gov
517-241-5493

STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

RICK SNYDER
GOVERNOR

BRIAN CALLEY
LT. GOVERNOR

November 2, 2015

Dr. Susan Hedman, Regional Administrator
United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard (R-19J)
Chicago, Illinois 60604-3507

Dear Dr. Hedman:

This letter is in follow up to a conference call on October 20, 2015 between the United States Environmental Protection Agency (USEPA), Region 5, and the Michigan Department of Environmental Quality (MDEQ). The purpose of that call was to discuss Region 5's Flint Safe Drinking Water Task Force (Task Force) that was established to provide the USEPA's technical expertise to the MDEQ and the city of Flint, Michigan.

During that call, it was requested that the State of Michigan provide the USEPA with an MDEQ point of contact for the Task Force. This letter is to inform you of the designation of Mr. Jim Sygo, Chief Deputy Director, MDEQ, as that point of contact. Mr. Sygo's contact information is below:

Michigan Department of Environmental Quality
P.O. Box 30473
Lansing, MI 48909-7973
sygoj@michigan.gov
517-284-6709

Thank you for your assistance in this matter as we work together to ensure a safe and reliable drinking water supply for the city of Flint.

Sincerely,

Rick Snyder
Governor

cc: Mr. Robert Kaplan, Deputy Regional Administrator, USEPA, Region 5
Mr. Dan Wyant, Director, MDEQ
Mr. Jim Sygo, Chief Deputy Director, MDEQ

DEQ

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
EXECUTIVE DIVISION

INFORMATION TRANSMITTAL AND REQUEST FOR GOVERNOR'S ACTION

TO: Governor Rick Snyder via Jean Hall

FROM: Dan Wyant, Director

DATE: November 3, 2015

SUBJECT: Task Force Point of Contact Designation Letter to Susan Hedman, Regional Administrator, United States Environmental Protection Agency, Region 5

Action Taken by DEQ (action requested of Governor's Office in parentheses)
☒ Letter (for Governor's signature – draft attached)
☐ Printed Material (for Governor's signature – attached)
☐ Proclamation Request (for Governor's signature – draft attached)
☐ Telephone Call (for Governor's information – explanation given under "Situation Description")
☐ Other:

Governor's Action Requested By: November 16, 2015

Situation Description: During an October 20 conference call between the USEPA and DEQ regarding USEPA's establishment of the Flint Safe Drinking Water Task Force, the USEPA requested that Governor Snyder designate a DEQ point of contact for the Task Force. Attached are a draft letter to be signed by Governor Snyder, the October 21 Flint Drinking Water Action Plan Update regarding the conference call, and USEPA's October 16 press release regarding the establishment of the Task Force. Please contact Karen Shaler, Executive Division, DEQ, at shalerk@michigan.gov when the letter is ready to be picked up. Thank you.

Contact Person's Name: Jim Sygo, Chief Deputy Director
DEQ Division/Office: Executive Division
Telephone: 517-284-6709
E-Mail Address: sygoj@michigan.gov

Governor's Response (for Governor's Office use only):

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- Action Step #1 has been incorporated into the After Action Plan (Action Step #4).

- It was determined that the information in Action Step #10 would be communicated better in person and has, therefore, been incorporated into Action Step #13.

- DEQ staff has tentatively identify the week of October 26 to meet with representatives from the remaining 10 locations in the Flint Community Schools who were not present at the October 16 meeting at the Superintendent's office.

- DEQ staff has contacted DHHS to request a meeting regarding lead education materials for schools.

- The first plumbing assessment has been scheduled for Friday, October 23. The subsequent sampling of the first facility has been scheduled for Saturday, October 24. This decision was made jointly among DEQ, DLARA, and DHHS in an effort to ensure that sampling staff could properly evaluate the sampling protocol without the added pressure of completing the sampling process before students arrived on-site.

- The DEQ Laboratory has created a fillable PDF form for use in the school sampling protocol. This form was created to streamline the information gathering process. The form was submitted for review by staff in DEQ, DHHS, and DLARA, and comments were subsequently incorporated. The form is now complete and ready for use.

- The corrosion control treatment plan (CCTP) and permit application were received late last Friday, October 16, and were reviewed. Our review comments were provided to Flint's consultant [Lockwood, Andrews & Newnam, Inc. (LAN)]. The CCTP was forwarded to EPA on October 16, and their comments were received on October 19. A conference call was held on October 20 between our staff and Darren Lytle and Michael Schock of EPA to discuss the main comments (EPA's and DEQ's) to confirm that both agencies concur with the design and proposed corrosion control dosages. We are currently preparing a revised set of comments, based on our discussion with EPA. The revised comments will be sent to EPA to confirm concurrence before sending to LAN.

- An Act 399 permit will be issued to the city of Flint to install corrosion control treatment following receipt of revised plans, specs, and – as needed – a permit application that addresses the revised review comments.

- DEQ staff has contacted DHHS to schedule a meeting to discuss the development of childcare facility guidance. This guidance will be similar in nature to what is being done in schools but will be tailored to address the specific

concerns with younger children and the smaller plumbing infrastructure of typical childcare facilities.

Additional Actions:

- Standing meetings with the city of Flint have been scheduled for Fridays at 10:00 a.m. These meetings have been scheduled through December 18. In addition, a tour of the Flint Water Treatment Plant has been scheduled for October 23. The DEQ be taking video footage of the tour, showing the coordinated efforts being taken by the city of Flint, DEQ, DHHS, and DLARA. Genesee County Health Department (GCHD) has been invited to the Friday meetings as well as the tour, and GCHD is in the process of determining if they can participate.

- A meeting was held between staff from the DEQ, DLARA, and DHHS to discuss details regarding the flow and coordination of efforts for the school sampling protocol. It was mutually agreed that it was best to only do one school at first so that we can ensure that the process runs smoothly from partner to partner. The first plumbing evaluation will be done at Freeman Elementary School on Friday, October 23. Steve Busch of the DEQ will accompany staff from DLARA to answer questions they might have during their plumbing evaluations. The subsequent water sampling effort will take place the next day, on Saturday, October 24. It was agreed that taking the samples on Saturday would allow staff to be able to evaluate the sampling process without the added pressure of ensuring that the sampling was complete before students arrived at the building.

- DEQ Director Dan Wyant, Jim Sygo, George Krisztian, and Karen Tommasulo held a conference call with Dr. Susan Hedman, EPA's Regional Administrator, and other representatives from EPA to discuss the EPA's formation of the Flint Safe Drinking Water Task Force. The purpose of the Task Force is to provide one-stop shopping for technical assistance for the optimization of corrosion controls for the switch from Detroit Water and Sewerage Department to the Karegnondi Water Authority. EPA requested a point of contact for the DEQ, and Director Wyant suggested Chief Deputy Director Jim Sygo. EPA agreed that this was an appropriate choice and requested a formal letter indicating Chief Deputy Director Sygo as the point of contact.

- DHHS has indicated that the total water filter/pitcher distribution for the period of October 6 through October 20 was 9,373 units.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
October 21, 2015

Shaler, Karen (DEQ)

From: Thelen, Mary Beth (DEQ)
Sent: Friday, October 16, 2015 5:40 PM
To: Krisztian, George (DEQ); Sygo, Jim (DEQ); Shekter Smith, Liane (DEQ)
Cc: Shaler, Karen (DEQ); Devereaux, Tracy Jo (DEQ)
Subject: FW: EPA Establishes Safe Drinking Water Task Force to Provide Expertise to MDEQ and City of Flint

FYI.

From: Josh Singer [mailto:noreply-subscriptions@epa.gov]
Sent: Friday, October 16, 2015 12:18 PM
To: Olszewski, Rosemarie (DEQ)
Subject: EPA Establishes Safe Drinking Water Task Force to Provide Expertise to MDEQ and City of Flint

Contact Information: Anne Rowan, rowan.anne@epa.gov 312-353-9391

For Immediate Release No. 15-OPA160

EPA Establishes Safe Drinking Water Task Force to Provide Technical Expertise to MDEQ and City of Flint

Task Force providing technical assistance on reconnecting the Flint drinking water system to a new source

CHICAGO (October 16, 2015) - Today U.S. Environmental Protection Agency Region 5 Administrator Susan Hedman established the Flint Safe Drinking Water Task Force to provide the Agency's technical expertise through regular conversations with designated officials from Michigan Department of Environmental Quality (MDEQ) and the City of Flint. The Task Force will be led by the Region 5 Deputy Regional Administrator and will assist with developing and implementing a plan to secure water quality, including measures to optimize corrosion control. Task Force members will be available to consult with MDEQ and the City of Flint on site in Flint. The Task Force will also coordinate as necessary with federal, state and local public health agencies to assist with protection of public health.

Specifically, the Task Force will provide technical assistance to the MDEQ and the City of Flint to reconnect the Flint system to a new source of drinking water (to be supplied by the Great Lakes Water Authority) and to optimize corrosion control for the Flint system, starting in October 2015. The Task Force will also provide technical assistance to the MDEQ and the City of Flint, as needed, in advance of and following connection of the Flint water system to a new source of drinking water (to be supplied by the Karegnondi Water Authority) and to optimize corrosion control for the Flint system, starting in 2016.

"EPA is committed to working with our state and local partners to ensure a safe and reliable drinking water supply for the residents of Flint, Michigan," Hedman said. "The formation of this task force continues our commitment to providing technical assistance to the City of Flint and the State of Michigan."

The Task Force will be comprised of scientists and technical experts from the EPA Region 5 office in Chicago, the National Risk Management Research Lab in Cincinnati and the EPA drinking water program. In addition, EPA will ask the Governor to designate a MDEQ official and the Mayor of Flint to designate a city official, to serve as points of contact for the Task Force.

From: Biehl, Laura (GOV)
Sent: Thursday, October 01, 2015 5:23 PM
To: Wurfel, Sara (GOV)
Subject: Friday media briefings

Importance: High

RDS/JA- LIVE Conference Call with media regarding Flint Water Comprehensive Action Plan

DATE: Friday, Oct. 2, 2015

Time: 8:15-8:40 a.m. PST

Location: Via phone from San Fran

RDS to call: [redacted]

- Call right at 8:30 a.m.; Call will be live immediately.
- SW will also be on the line to moderate and screen reporter questions.

Purpose: Media conference call to discuss Flint Water Comprehensive Action Plan

Possible Topics:
Flint water Action plan
Lead in Flint water
Handling of Flint Water issue
Reconnecting Flint to Detroit water

Media invited:
Flint area media (print, TV and radio)
Associated Press
Detroit News
Detroit Free Press

Recent Articles:
Freep: Legislators take action to fix Flint water supply- http://www.freep.com/story/news/politics/2015/10/01/legislators-take-action-fix-flint-water-supply/73152540/
WDIV: Public health emergency declared due to lead in Flint water- http://www.clickondetroit.com/news/public-health-emergency-declared-due-to-lead-in-flint-water/35601670
Mlive: Governor says fallout from Flint water switch wasn't fully understood- http://www.mlive.com/news/flint/index.ssf/2015/09/snyder_says_he_helped_bring_wa.html
Freep: Snyder finally says lead in Flint water may be problem- http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/30/time-gov-says-lead-flint-water-may-problem/73088666/
Mlive: Legislative Black Caucus urges state of emergency for Flint water- http://www.mlive.com/news/flint/index.ssf/2015/09/michgans_black_causus_urges_go.html

Market: Statewide

Contact: Conference line: [redacted]

RDS/JA – LIVE Radio interview with Frank Beckmann on WJR Radio

Date: Friday, Oct. 2, 2015

Time: 8:45-8:55 a.m. PST

Location: Via phone

RDS to call: [redacted]

Purpose: To discuss priorities and key issues you are working on in 2015.

Possible Topics:

- [redacted]
- Flint Water
- [redacted]

Recent articles:
Freep: Snyder appoints Joan Larsen to Supreme Court- http://www.lansingstatejournal.com/story/news/politics/2015/09/30/u-m-attorney-headed-michigan-supreme-court/73083044/
AP: Michigan in early talks on taking more Syria, Middle East refugees, Snyder says- http://www.crainsdetroit.com/article/20150929/NEWS01/150929798/michigan-in-early-talks-on-taking-more-syria-middle-east-refugees
WILX: Governor Snyder Says Road Talks Going Well- http://www.wilx.com/home/headlines/Governor-Snyder-Says-Road-Talks-Going-Well-330164301.html
AP: Snyder acknowledges some mistakes in tapping Flint River- http://www.elkharttruth.com/news/michigan/2015/09/30/Snyder-acknowledges-some-mistakes-in-tapping-Flint-River.html

Last interview: 5/28/15 at Mackinac

Market: Southeast Michigan- online at wjr.com

Contact: Studio: 313-875-4480; Back-up Producer Terri Leib cell: [redacted]

Laura Biehl
Communications Manager
Executive Office of Michigan Gov. Rick Snyder
George W. Romney Building
111 S. Capitol Ave.
Lansing, MI 48933
Office: (517) 335-6397
[redacted]
BiehlL@Michigan.gov

From: Biehl, Laura (GOV)
Sent: Wednesday, December 09, 2015 12:11 PM
To: Paciorek, Josh (GOV)
Subject: FW: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: Flint Update for WFNT.docx

From: Brown, Jessica (GOV)
Sent: Tuesday, December 08, 2015 5:04 PM
To: Bedan, Morgan (GOV) <BedanM@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Cc: Biehl, Laura (GOV) <BiehlL@michigan.gov>
Subject: RE: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

Morgan/Jarrod:

Attached is the update for Flint water and the WFNT interview. Includes testing numbers, steps families a can take to reduce lead exposure (i.e. free testing hotline, where to get filters, etc.). Also touches on the top three items and where they stand from the Governor's 10-point action plan.

From: Agen, Jarrod (GOV)
Sent: Tuesday, December 08, 2015 3:50 PM
To: Biehl, Laura (GOV) <BiehlL@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>
Subject: FW: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

This was last night's update

From: Wyant, Dan (DEQ)
Sent: Monday, December 07, 2015 3:34 PM
To: Scott, Allison (GOV) <scotta12@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Emmitt, Beth (GOV) <emmittb@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>
Cc: Wyant, Dan (DEQ) <WyantD@michigan.gov>; Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>; Edgerton, Shelly (LARA) <EdgertonS1@michigan.gov>; Dykema, Linda D. (DHHS) <DykemaL@michigan.gov>
Subject: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

- Flint Drinking Water Action Plan Update
- Document on What is a Part Per Billion.

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions. I have also added Richard Baird to this weekly email.

Thank you.

Dan Wyant
Director

Flint Fast Facts for WFNT interview

From: Comms – Jess Brown
DEQ – Brad Wurfel
DHHS – Jennifer Smith

Date: December 8, 2015

---

1. **How many people have been tested since Oct. 1 Flint Water Action Plan was implemented?**
    - Total of 1,836 tested, 39 elevated results
        - Children 0 – 5: 806 tested
        - Children 6 – 17: 525 tested
        - Adults: 505 tested

2. **What are the most recent recommendations to protect your family from lead exposure?**
    - Protecting your family from lead in the water:
        - Get your water tested for lead. It's free. Call (810) 787-6537 to learn more.
        - Use a water filter in your home. MDHHS continues to provide free water filters and replacement cartridges to Flint residents at four locations, including the MDHHS Flint offices and the Genesee County Community Action Resource Department.
        - Run only cold water through the filter.
        - If you do not have a water filter, use bottled water for drinking and mixing formula.
        - Use filtered or bottled water for drinking (including making coffee, drink mixes, juice, baby formula), and cooking (even if you boil the water, the lead will stay in the water and food).
        - If you have to use unfiltered water for drinking or cooking, run the tap for five minutes before using the water
    - Testing children:
        - Children who live in the city of Flint should be tested for lead exposure. This should be done as soon as possible.
        - The best place to get your child's blood lead test is your doctor's office. Contact your primary care provider.
        - Children can also get a free lead test at the Genesee County Health Department. For help with transportation, call 2-1-1.
    - Safe cleaning:
        - Safe cleaning is important. Keeping your home clean and safe from lead hazards will help to protect your family.
        - Buildings built before 1978 could have lead paint in them. Use wet paper towels to clean up paint chips and dust in these older buildings. Be sure to clean around windows, play areas, and floors.
        - Wash hands and toys often with soap and water.
        - You can use unfiltered tap water to wipe down countertops, mop floors, and wash clothes

The DEQ continues implementing the Governor's 10-point action plan to protect kids and families in Flint:

1. SCHOOLS TESTING

- The Governor's plan commits that DEQ will test water in every Flint school. To date, 8 schools in Flint have undergone a thorough inspection of their plumbing. Crews from the state are completing one to two schools each weekend.
- The story has been the same in each school inspected: lead exposure has been limited to old drinking fountains and faucets that should have been changed out years ago. When these fixtures are run for a couple minutes, lead presence drops to safe levels. If / when these fixtures are removed, it will address the lead exposure in schools.
- DEQ has not identified lead in the deeper plumbing of the schools. That's great news. It means fixing the issue will be comparatively inexpensive and quick.

2. COMMUNITY WATER TESTING
    - Since September, more than 500 residents have taken advantage of free home water sampling through the DEQ lab. Results are updated regularly on the DEQ web site, www.michigan.gov/FLINTWATER.
    - Residents are encouraged to continue taking advantage of this free service, but also are encouraged to get kids tested for blood lead levels.

3. LEAD SERVICE LINE REPLACEMENT

- The only way to remove the threat of lead exposure in drinking water is to remove sources like old faucets and lead service lines. The DEQ is working with the city to develop a long-term plan for removing the service lines. This is complicated because the service line is the portion that runs from the city system to the residence. It's the part that is mostly on private property and is generally considered the customer's responsibility.
- DEQ worked with Congressman Kildee to get EPA approval to use Revolving Loan Fund dollars to accomplish lead service line replacement.

OTHER VARIOUS ISSUES:

- Cong. Kildee has renewed calls for loan forgiveness in Flint. The city owes the state approximately $20.8 million for past loans, and they're scheduled to be paid off in 2024. DEQ cannot forgive old loans; we can, however, build loan forgiveness into new loans. Forgiveness is presently capped at 30 percent on new loans.
- City has called on DEQ to pay for fixes to the broader water distribution system on the idea that running river water through the system for 14 months ruined it. That's an unproven statement. The system has been in a serious state of disrepair for many years. We have not addressed this issue in the media. We are focused on the Governor's plan.
- Lawmakers have called for the state to create a fund to provide wraparound services for the (Kildee says 7,000) kids exposed to Flint water situation. Don't know where the 7,000 number came from. DHHS has numbers of kids who actually have elevated blood lead levels. Again, not an issue we've addressed or plan to.

From: Stephen Carmody <sgcarmod@umich.edu>
Sent: Tuesday, January 05, 2016 11:09 AM
To: Biehl, Laura (GOV)
Subject: Re: news media information request

thanks!

On Tue, Jan 5, 2016 at 11:07 AM, Biehl, Laura (GOV) <BiehlL@michigan.gov> wrote:

Hi Steve,

Dave forwarded me your email. Here is our statement regarding the investigation. You can attribute to me.

"We will cooperate fully with any requests from the U.S. Attorney's Office as it looks into Flint's water challenges. Gov. Snyder has appointed an independent panel that is reviewing all state, local and federal actions related to the situation. We are committed to working with Mayor Karen Weaver and county leaders as we focus on protecting the health of Flint residents and all Michiganders."

Best,

Laura Biehl

Deputy Press Secretary

Executive Office of Michigan Gov. Rick Snyder

George W. Romney Building

111 S. Capitol Ave.

Lansing, MI 48933

Office: 517-335-6397

[redacted]

BiehlL@Michigan.gov

From: Stephen Carmody [mailto:sgcarmod@umich.edu]
Sent: Tuesday, January 05, 2016 11:04 AM
To: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: news media information request

David,

i just saw the MLive article about the DOJ investigation into the Flint water contamination.

Could you send me the governor's office statement?

Steve Carmody

Michigan Radio

From: Biehl, Laura (GOV)
Sent: Wednesday, December 09, 2015 12:11 PM
To: Paciorek, Josh (GOV)
Subject: FW: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: Flint Update for WFNT.docx

From: Brown, Jessica (GOV)
Sent: Tuesday, December 08, 2015 5:04 PM
To: Bedan, Morgan (GOV) <BedanM@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Cc: Biehl, Laura (GOV) <BiehlL@michigan.gov>
Subject: RE: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

Morgan/Jarrod:

Attached is the update for Flint water and the WFNT interview. Includes testing numbers, steps families a can take to reduce lead exposure (i.e. free testing hotline, where to get filters, etc.). Also touches on the top three items and where they stand from the Governor's 10-point action plan.

From: Agen, Jarrod (GOV)
Sent: Tuesday, December 08, 2015 3:50 PM
To: Biehl, Laura (GOV) <BiehlL@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>
Subject: FW: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

This was last night's update

From: Wyant, Dan (DEQ)
Sent: Monday, December 07, 2015 3:34 PM
To: Scott, Allison (GOV) <scotta12@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Emmitt, Beth (GOV) <emmittb@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>
Cc: Wyant, Dan (DEQ) <WyantD@michigan.gov>; Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>; Edgerton, Shelly (LARA) <EdgertonS1@michigan.gov>; Dykema, Linda D. (DHHS) <DykemaL@michigan.gov>
Subject: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

- Flint Drinking Water Action Plan Update
- Document on What is a Part Per Billion.

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions. I have also added Richard Baird to this weekly email.

Thank you.

Dan Wyant
Director

Flint Fast Facts for WFNT interview

From: Comms – Jess Brown
DEQ – Brad Wurfel
DHHS – Jennifer Smith

Date: December 8, 2015

---

1. **How many people have been tested since Oct. 1 Flint Water Action Plan was implemented?**
    - Total of 1,836 tested, 39 elevated results
        - Children 0 – 5: 806 tested
        - Children 6 – 17: 525 tested
        - Adults: 505 tested

2. **What are the most recent recommendations to protect your family from lead exposure?**
    - Protecting your family from lead in the water:
        - Get your water tested for lead. It's free. Call (810) 787-6537 to learn more.
        - Use a water filter in your home. MDHHS continues to provide free water filters and replacement cartridges to Flint residents at four locations, including the MDHHS Flint offices and the Genesee County Community Action Resource Department.
        - Run only cold water through the filter.
        - If you do not have a water filter, use bottled water for drinking and mixing formula.
        - Use filtered or bottled water for drinking (including making coffee, drink mixes, juice, baby formula), and cooking (even if you boil the water, the lead will stay in the water and food).
        - If you have to use unfiltered water for drinking or cooking, run the tap for five minutes before using the water
    - Testing children:
        - Children who live in the city of Flint should be tested for lead exposure. This should be done as soon as possible.
        - The best place to get your child's blood lead test is your doctor's office. Contact your primary care provider.
        - Children can also get a free lead test at the Genesee County Health Department. For help with transportation, call 2-1-1.
    - Safe cleaning:
        - Safe cleaning is important. Keeping your home clean and safe from lead hazards will help to protect your family.
        - Buildings built before 1978 could have lead paint in them. Use wet paper towels to clean up paint chips and dust in these older buildings. Be sure to clean around windows, play areas, and floors.
        - Wash hands and toys often with soap and water.
        - You can use unfiltered tap water to wipe down countertops, mop floors, and wash clothes

The DEQ continues implementing the Governor's 10-point action plan to protect kids and families in Flint:

1. SCHOOLS TESTING

- The Governor's plan commits that DEQ will test water in every Flint school. To date, 8 schools in Flint have undergone a thorough inspection of their plumbing. Crews from the state are completing one to two schools each weekend.
- The story has been the same in each school inspected: lead exposure has been limited to old drinking fountains and faucets that should have been changed out years ago. When these fixtures are run for a couple minutes, lead presence drops to safe levels. If / when these fixtures are removed, it will address the lead exposure in schools.
- DEQ has not identified lead in the deeper plumbing of the schools. That's great news. It means fixing the issue will be comparatively inexpensive and quick.

2. COMMUNITY WATER TESTING
    - Since September, more than 500 residents have taken advantage of free home water sampling through the DEQ lab. Results are updated regularly on the DEQ web site, www.michigan.gov/FLINTWATER.
    - Residents are encouraged to continue taking advantage of this free service, but also are encouraged to get kids tested for blood lead levels.

3. LEAD SERVICE LINE REPLACEMENT

- The only way to remove the threat of lead exposure in drinking water is to remove sources like old faucets and lead service lines. The DEQ is working with the city to develop a long-term plan for removing the service lines. This is complicated because the service line is the portion that runs from the city system to the residence. It's the part that is mostly on private property and is generally considered the customer's responsibility.
- DEQ worked with Congressman Kildee to get EPA approval to use Revolving Loan Fund dollars to accomplish lead service line replacement.

OTHER VARIOUS ISSUES:

- Cong. Kildee has renewed calls for loan forgiveness in Flint. The city owes the state approximately $20.8 million for past loans, and they're scheduled to be paid off in 2024. DEQ cannot forgive old loans; we can, however, build loan forgiveness into new loans. Forgiveness is presently capped at 30 percent on new loans.
- City has called on DEQ to pay for fixes to the broader water distribution system on the idea that running river water through the system for 14 months ruined it. That's an unproven statement. The system has been in a serious state of disrepair for many years. We have not addressed this issue in the media. We are focused on the Governor's plan.
- Lawmakers have called for the state to create a fund to provide wraparound services for the (Kildee says 7,000) kids exposed to Flint water situation. Don't know where the 7,000 number came from. DHHS has numbers of kids who actually have elevated blood lead levels. Again, not an issue we've addressed or plan to.

From: Biehl, Laura (GOV)
Sent: Tuesday, January 05, 2016 11:06 AM
To: 'arthur@huffingtonpost.com'
Cc: Murray, David (GOV); Heaton, Anna (GOV)
Subject: RE: filing on DOJ

Hi Arthur- Dave forwarded me your email. Here is our statement regarding the investigation. It can be attributed to me.

"We will cooperate fully with any requests from the U.S. Attorney's Office as it looks into Flint's water challenges. Gov. Snyder has appointed an independent panel that is reviewing all state, local and federal actions related to the situation. We are committed to working with Mayor Karen Weaver and county leaders as we focus on protecting the health of Flint residents and all Michiganders."

Best,

Laura Biehl
Deputy Press Secretary
Executive Office of Michigan Gov. Rick Snyder
George W. Romney Building
111 S. Capitol Ave.
Lansing, MI 48933
Office: 517-335-6397
[redacted]
BiehlL@Michigan.gov

From: Arthur Delaney [mailto:arthur@huffingtonpost.com]
Sent: Tuesday, January 05, 2016 10:57 AM
To: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: filing on DOJ

Hi Dave, I am filing a short item on the USAO opening an investigation into the Flint water crisis. They tell me they're working with the EPA.

First reported here I think: https://twitter.com/ACLUofMichigan/status/684394955276615680

--
Reporter | Huffington Post
(202) 624-9396 desk | [redacted]
Twitter @ArthurDelaneyHP

From: Biehl, Laura (GOV)
Sent: Tuesday, January 05, 2016 11:08 AM
To: 'sgcarmod@umich.edu'
Cc: Murray, David (GOV); Heaton, Anna (GOV)
Subject: RE: news media information request

Hi Steve,

Dave forwarded me your email. Here is our statement regarding the investigation. You can attribute to me.

"We will cooperate fully with any requests from the U.S. Attorney's Office as it looks into Flint's water challenges. Gov. Snyder has appointed an independent panel that is reviewing all state, local and federal actions related to the situation. We are committed to working with Mayor Karen Weaver and county leaders as we focus on protecting the health of Flint residents and all Michiganders."

Best,

Laura Biehl
Deputy Press Secretary
Executive Office of Michigan Gov. Rick Snyder
George W. Romney Building
111 S. Capitol Ave.
Lansing, MI 48933
Office: 517-335-6397
[redacted]
BiehlL@Michigan.gov

From: Stephen Carmody [mailto:sgcarmod@umich.edu]
Sent: Tuesday, January 05, 2016 11:04 AM
To: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: news media information request

David,

i just saw the MLive article about the DOJ investigation into the Flint water contamination.

Could you send me the governor's office statement?

Steve Carmody
Michigan Radio

From: Murray, David (GOV)
Sent: Wednesday, December 09, 2015 5:34 PM
To: Agen, Jarrod (GOV); Holland, Meegan (GOV); Baird, Richard (GOV); Clement, Elizabeth (GOV); Muchmore, Dennis (GOV); Hollins, Harvey (GOV)
Subject: DRAFT task force response letter
Attachments: DRAFT Task Force response.docx

Good evening team,

Here is a draft response to the task force letter that I think covers the needed ground and designates Harvey for the role suggested by the task force members. Please let me know if we are missing anything, or if there are points you want me to make, realizing that this letter will be distributed to the public.

Thank you for your assistance.

Dave

Flint Water Advisory Task Force Members,

Thank you for your correspondence on Dec. 7, and, most importantly, for your hard work to promote public health and protect our residents as we move forward. Your efforts are both respected and appreciated.

As acknowledged in your letter, we have taken many steps to address the challenges in Flint as they relate to reducing lead exposure. I am pleased to see the progress since October, and recognize there is more work that must be done to ensure that this progress continues.

At the state level, there has been a confluence of efforts between Michigan Departments of Environmental Quality and Health and Human Services to coordinate with the Genesee County Health Department, local schools, and our partners in the non-profit community.

These partners are making progress, and we know we can always strive to improve practices and communication for continual improvement.

You make a solid suggestion about establishing a person who is independent of any one of the involved state agencies or organizations to serve as the point person to coordinate the ongoing work. I am recommending that Harvey Hollins, director of the Office of Urban Initiatives, carry out this effort. Harvey is well-versed in the issue and the challenges faced by our cities and will be effective in this role.

I also support your suggestion of a dashboard to make information about our work and progress more accessible to the Flint community. It's important that people have confidence that we are working to address any problems and will take the necessary actions to improve interaction among city, state and federal agencies.

People in Flint and across our state deserve safe, clean water. I want them to be confident that the water coming out of their tap is safe for their families. And I want them to trust that their government – at all levels – is working effectively to protect them.

I thank you again for lending your time and expertise to this vitally important effort.

Regards,

Flint Water Advisory Task Force Members,

Thank you for your correspondence on Dec. 7, and, most importantly, for your hard work to promote public health and protect our residents as we move forward. Your efforts are both respected and appreciated.

As acknowledged in your letter, we have taken many steps to address the challenges in Flint as they relate to reducing lead exposure. I am pleased to see the progress since October, and recognize there is more work that must be done to ensure that this progress continues.

At the state level, there has been a confluence of efforts between Michigan Departments of Environmental Quality and Health and Human Services to coordinate with the Genesee County Health Department, local schools, and our partners in the non-profit community.

These partners are making progress, and we know we can always strive to improve practices and communication for continual improvement.

You make a solid suggestion about establishing a person who is independent of any one of the involved state agencies or organizations to serve as the point person to coordinate the ongoing work. I am recommending that Harvey Hollins, director of the Office of Urban Initiatives, carry out this effort. Harvey is well-versed in the issue and the challenges faced by our cities and will be effective in this role.

I also support your suggestion of a dashboard to make information about our work and progress more accessible to the Flint community. It's important that people have confidence that we are working to address any problems and will take the necessary actions to improve interaction among city, state and federal agencies.

People in Flint and across our state deserve safe, clean water. I want them to be confident that the water coming out of their tap is safe for their families. And I want them to trust that their government – at all levels – is working effectively to protect them.

I thank you again for lending your time and expertise to this vitally important effort.

Regards,

From: Murray, David (GOV)
Sent: Friday, December 18, 2015 11:58 AM
To: Holland, Meegan (GOV)
Subject: FW: Flint News Article and Update
Attachments: image003.png; ATT00001.htm; 12 11 15 City of Flint SOP.PDF; ATT00002.htm

Dave Murray
Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]mobile
Twitter:@michigandmurray

From: Smith, Paul (GOV)
Sent: Friday, December 18, 2015 11:57 AM
To: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: Fwd: Flint News Article and Update

FYI

Begin forwarded message:

> **From:** "Kelenske, Chris (MSP)" <KelenskeC@michigan.gov>
> **Date:** December 18, 2015 at 11:27:34 AM EST
> **To:** "Etue, Kriste (MSP)" <EtueK@michigan.gov>, "Gorski, Gary (MSP)" <GorskiG@michigan.gov>, "Smith, Paul (GOV)" <SmithP29@michigan.gov>
> **Cc:** "Katarsky, Anthony (MSP)" <KatarskyA@michigan.gov>
> **Subject: Flint News Article and Update**
>
> Note the below article on the Flint water issue. They are starting to follow the emergency management process to include implementing their Support Emergency Operations Plan (Flint's is attached). The County has an Emergency Operations Plan that Flint is to support. Opening an EOC is key for coordination and that has been done at the city level (at least to some degree but probably not at the staffing level it needs to be at this time).
>
> **In a letter to Weaver Thursday, Dec. 17, Curtis says county guidelines and state law call for him to consult with the county's emergency management coordinator -- Sheriff Robert Pickell -- and Michigan State Police once he has been given the declaration.**
>
> **"Upon such consultation and review of the city's declaration of emergency and upon determining that the situation is beyond the capabilities of the county to handle, I as the county board chair, may then declare a state of emergency and request assistance from the state of Michigan and a governor's declaration," Curtis' letter says.**

We are working to make sure we have all the information needed to ensure the Mayor and County Commissioner understand the limitations of the Emergency Management Act and Stafford Act. They may find that the energy they are spending hoping for a federal emergency declaration may be better spent looking to HUD or EPA for assistance. A better job is needed to manage expectations which I will work with others on that. We will also make sure they understand what information we would need before we look at a Governor or Presidential declaration. They cannot just ask for a Governor's declaration … they need to provide us information as to why they need it and what they (Flint and the County) have done thus far.

As outlined in the Michigan Emergency Management Plan, *Local EM programs must ensure that local disaster relief forces are utilized to the maximum extent possible, including the use of local contractors, activation of mutual aid and other standing agreements, and use of nearby resources. State disaster assistance is used to supplement local efforts and resources, and to help relieve extraordinary burden. It is NOT to be used for simple budgetary relief or to relieve hardship.* FEMA's first questions will be, "What is it (specifically) they need that they cannot get from others."

Genesee County chairman says he can send Flint disaster request to governor
Ron Fonger
MLive
12.18.15

(This story has been updated with comment from Flint ayor Karen Weaver.)

FLINT, MI -- Genesee County Board of Commissioners Chairman Jamie Curtis says he is authorized to forward Flint's request for a disaster declaration to the governor and plans to meet with Mayor Karen Weaver about it next week.

In a letter to Weaver Thursday, Dec. 17, Curtis says county guidelines and state law call for him to consult with the county's emergency management coordinator -- Sheriff Robert Pickell -- and Michigan State Police once he has been given the declaration.

"Upon such consultation and review of the city's declaration of emergency and upon determining that the situation is beyond the capabilities of the county to handle, I as the the county board chair, may then declare a state of emergency and request assistance from the state of Michigan and a governor's declaration," Curtis' letter says.

Curtis declined to comment further on the matter, but he chairman's letter says he will "do whatever I can ... to assist the city of Flint as it continues to struggle with its emergency water situation."

Weaver said she plans to meet with Curtis and other emergency management officials Monday, Dec. 21, to work on the request.

Earlier this week, Curtis said he did not plan to call a special meeting of the county Board of Commissioners to consider the disaster request but would add the issue to the agenda of the county board at its next meeting on Jan. 4.

The mayor has said state and federal funds are needed to respond to health problems caused by lead in drinking water here and to replace thousands of lead service lines in the city.

Weaver's declaration, read to the City Council Monday, Dec. 14, did not include an estimate of damages suffered by the city and residents.

To support the request for disaster relief, the city also announced that it has enacted its "Support Emergency Operations Plan" and opened an "Emergency Operations Center."

Sean Kammer, assistant to the city administrator, said the center is available to answer questions from residents and will be used to coordinate relief efforts.

The EOC is located in Flint Fire Station 1, 310 E. Fifth St., and the center can be reached by calling 810-237-6888, extension 5005 from 8 a.m. until 5 p.m. Monday through Friday.

http://www.mlive.com/news/flint/index.ssf/2015/12/genesee_county_board_chair_say.html#incart_m-rpt-2

Chris

Capt. Chris A. Kelenske
Deputy State Director/Commander
Emergency Management and Homeland Security Division
Michigan State Police
4000 Collins Road
Lansing, MI 48910
(517) 333-5042

"A PROUD tradition of SERVICE through EXCELLENCE, INTEGRITY, and COURTESY."

JOIN THE MSP

County

City of Flint, Michigan

Support Emergency Operations Plan

September 24, 2014

A support Plan to the Genesee County Emergency Action Guidelines

TABLE OF CONTENTS

Signature Page

Introduction to the Plan 1
- Purpose 1
- Scope 1
- Plan Maintenance and Implementation 1
- Emergency Management Program Oversight 1

Basic Information 2
- Community Profile 2
- Emergency Management Authority 2
- Response Resources 2
- Emergency Management Organization 3-4

General Emergency Management Guidelines 5

Emergency Response Procedures 6-7

Addenda: Emergency Action Guidelines 8
- Attachment A: Direction and Control 9
- Attachment B: Fire Services 10
  - Appendix 1: Hazmat Response Procedures 11
- Attachment C: Law Enforcement 12
- Attachment D: Warning and Communications 13
- Attachment E: Public Information 14
  - Appendix 1: City Council 15
- Attachment F: Damage Assessment 16
- Attachment G: Public Works 17
- Attachment H: Emergency Medical Services 18
- Attachment I: Human Services 19
  - Appendix 1: Resources and Support Services 20

SIGNATURE PAGE

To all Recipients:

Transmitted herewith is the Support Emergency Operations Plan for the City of Flint in support to the Genesee County Emergency Action Guidelines (EAG). The plan provides a framework for the City of Flint to use in performing emergency functions before, during, and after a natural disaster, technological incident or a hostile attack.

The policies contained herein do not discriminate on the basis of race, color, national origin, religion, sex, age, disability or political beliefs.

This plan was adopted by Flint City under Resolution No._____ Dated_____. It supersedes all previous plans.

Karen Weaver 12-11-15

Signature of Chief Executive Official (Mayor) Date

Dr. Karen Weaver

CITY OF FLINT, MICHIGAN

INTRODUCTION TO THE PLAN

I. Purpose

The City of Flint has elected to be incorporated into the Genesee County Emergency Management Program. By becoming part of the county emergency management program, the City of Flint and Genesee County have certain responsibilities to each other. This Support Emergency Operations Plan has been developed to identify the responsibilities between the City of Flint and Genesee County in regards to pre-disaster emergency management activities. It also provides for City of Flint government agencies to respond to various types of emergencies or disasters that affect the community. This support plan is to be used in concurrence with the Genesee County Emergency Action Guideline, as it is a supporting document. The support plan will be maintained in accordance with the most current standards of the Genesee County Emergency Action Guidelines. Review of this support plan shall be accomplished concurrently with the county plan.

II. Scope

This plan is a flexible document in which changes from the content of the plan may occur due to unique nature of emergencies. Each agency that has a supported role in this plan or its elements has developed Standard Operating Procedures (SOP) which provides systematic instructions for accomplishing assigned functions. In addition, to support emergency preparedness and response efforts, the local government also conducts other activities such as personnel training, participating in exercises, encouraging chronic disease prevention techniques; educate the public on awareness activities, and use of appropriate land use planning decisions for mitigation and prevention purposes as well. Through this plan, the City of Flint continues to implement the National Incident Management System, participating in efforts to provide an effective and efficient incident management operation.

III. Plan Maintenance and Implementation

The plan has been developed together with local community, and county officials to ensure consistency within the county emergency management program documents. The plan is required to be approved by the City of Flint's Chief Executive Official every four years, or whenever the CEO changes and is to be forwarded to the County Emergency Management Office. Upon approval, it will be implemented, tested through exercises in concurrence with County officials, and review/updated to maintain currentness with the Genesee County Emergency Action Guidelines.

This plan has been provided to all municipal agencies, elected officials, the county emergency management office and the MSP/EMHSD district coordinator.

IV. Emergency Management Program Oversight

The City of Flint has appointed the Chief of Fire to serve as the city's emergency management liaision responsible for working with the County Emergency Management Coordinator in matters pertaining to emergency management for the municipality. Pursuant the requirements in P.A. 390, of 1976, as amended, Section 19, Genesee County has adopted a resolution that incorporates the City of Flint into its emergency management program, necessary for diaster assistance.

CITY OF FLINT, MICHIGAN

BASIC INFORMATION

I. Community Profile

The City of Flint is situated in the center of Genesee County. At 33.42 square miles, it is the county's largest city. According to the United States Census Bureau, Flint's estimated population is 99,763.

Flint has an average number of people identified as individuals with special/functional needs for a city of its size. Many of these individuals reside in congregate care centers, but others reside in non-group homes where help is provided as needed or on-call.

According to the Genesee County Hazard Mitigation Plan, the three situations the community is most vulnerable to is: inclement weather (e.g. thunderstorms, hail, lightning and severe wind storms, snow, tornadoes), structure fires and hazardous material incidents. All of these incidents can happen anywhere within the community, but hazardous material incidents are more likely to occur on the major expressways and highways. I-475, I-69, M-21 & M-54 all pass through Flint while I-75/US 23 is very close to its western border. More information regarding hazard vulnerability can be found in the County's Hazard Mitigation Plan/Analysis.

Within the community, there are 19 sites that contain extremely hazardous materials. Pursuant to SARA Title III, off-site emergency response plans have been developed by the LEPC to prepare the fire department(s) to respond to the specific hazardous materials on the sites. In addition, the owners of the site(s) have reported the types of hazardous material that is housed on-site, as required by the Emergency Planning and Community Right-To-Know Act.

II. Emergency Management Authority

Pursuant to P.A. 390 of 1976, as amended, the municipal CEO may declare a local state of emergency for the City of Flint. Also, Sections 1-801and 3-306 of the Flint City Charter describe procedures regarding emergency rules and ordinances. Upon a declaration, PA 390 also authorizes the CEO to issue directives, such as restrictions to travel on local roads. The local declaration activates this emergency plan as well as the emergency operations center to conduct activities to ensure the safety of people, property, and the environment.

Since the City of Flint has been a recipient of federal preparedness assistance, a resolution has been adopted by the local government for establishing the National Incident Management System as the standard for incident management for all-hazards. Through the adoption, the City continues to implement the concepts of the NIMS through training, planning, and exercising activities.

III. Response Resources

The City of Flint maintains fulltime departments of both Police and Fire. They are responsible for providing public safety and welfare to the community. Each department is comprised of qualified emergency personnel, and maintains equipment capable of responding to emergencies. A list of resources that the departments use for emergency situations can be requested through the municipal emergency management liaison. Under certain circumstances, if the incident requires additional resources beyond the capability of the City of Flint, the CEO may enact mutual aid. This is a familiar practice within both departments.

IV. Emegency Management Organization

The City of Flint emergency management organization consists of a number of departments responsible for conducting activities in response to emergencies within the community. These departments have been assigned to specific emergency functions for which the municipality has identified necessary in order to provide an effective response to secure the safety of people, property, and the environment. Each agency is responsible for implementing pre-disaster activities to help prevent and/or prepare for various hazards that the community is vulnerable to such as: chronic diseases, flooding, hazardous material spills, inclement weather, tornadoes, and public disturbance to name a few; a more profound list can be found in the County's Hazard Mitigation Plan/Analysis. Prevention and preparedness activities include: awareness training, exercising, hygienic practices to prevent spreading of infectious diseases, stockpiling equipment, and educating people on how to care for themselves during an emergency.

The CEO serves as the incident manager for municipal coordination. At his/her side includes the Finance Director and the Emergency Management Liaison (EML). The EML's duties include planning, operations, and logistics.

The table lists the functions, assigned agencies, primary point of contact of municipal EOC representatives.

Function	Agency	Primary Contact
Direction and Control	City Hall	Dr. Karen Weaver, Mayor
	City Hall	City Administrator Natasha L. Henderson
Fire Services	Fire Department	Fire Chief David Cox Jr.
Law Enforcement	Police Department	Police Chief James Tolbert
Warning & Communications	Genesee County 911 (GCCD)	Dave Ackley
Public Information	City PIO	Sean Kammer
Damage Assessment	Assesments	Assessor William E. Fowler
Public Works	DPW - Utilities -Transportation	Kay Muhammad
Emergency Medical Services	Fire Department	Fire Chief David Cox Jr.
Human Services	Fire Department	Emergency Management Liaison Fire Chief David Cox Jr.
Finance	Finance Department	Dawn Steele

Line of Succession

The following is a list of the 2nd and 3rd alternates for each agency/function identified in the plan to maintain the emergency tasks assigned.

Agency	2nd Alternate	3rd Alternate
City Hall	City Administrator	Finance Director
Fire Department	Safety/Training Officer	On Duty District Commander
Police Department	Captain Collin Birnie	Captain Leigh Golden
Genesee County 911 (GCCD)	911 Supervisor Tabit	On Duty Shift Supervisor
Public Information Official	Sean Kammer	Maxine Murray
Assesments	Deputy Assesor Jacquetta Overton	Support Supervisor Tracy Weiss
DPW - Utilities Department - Transportation Dept.	Kay Muhammad	Rob Bincsik Betty Wideman
Emergency Medical Services	On Duty District Commander	On Duty Ranking Officer
Finance Department	Dawn Steele	Patrick Jones

CITY OF FLINT, MICHIGAN
GENERAL EMERGENCY MANAGEMENT GUIDELINES

The following guidelines are general to the municipality, all agencies, and individuals who have a role in responding to an emergency within the community and coordinated by the City of Flint. Being that emergency planning is a work in progress guidelines are continuously reviewed and modified due to the situation and complexity of incidents.

a) Report to the local emergency operations center when activated for scheduled exercises or disasters, or delegate another individual to staff the EOC and implement the plan.

b) Implement mutual aid agreements or contracts with other organizations to supplement local resources that have been exhausted.

c) Ensure compliance with this plan and the County Emergency Plan, and any pertinent procedures and documents issued, which impact the provision of emergency services in the municipality.

d) Train department emergency personnel in emergency management functions and NIMS/ICS concepts.

e) Assists in the development, review and maintenance of the plan and of the County EOP.

f) Develop and maintain standard operating procedures for specific functions or actions identified in the plan.

g) Maintain a list of resources available by the departments/agencies.

h) Protect records and other resources deemed essential for continuing government functions and each agency's emergency operations in accordance to procedures and policies.

i) Establish mutual aid agreements and/or contracts with other jurisdictions/entities to supplement municipal resources.

j) Establish a system of coordination, such as the incident command system, within the EOC. Field operations, however, are required to use the incident command system.

k) Participate in the review and update of this emergency operations plan, in accordance to a schedule identified by the municipal emergency management liaison and the county emergency management coordinator.

l) Adapt and provide printed emergency management materials and verbal messages to those who are vision impaired, non-English speaking, or deaf/hard of hearing.

m) Conduct pre-disaster public awareness activities including education classes, self-care guidelines, communications plans, and protocols.

n) Make recommendations to the CEO regarding protective actions.

o) Record and log significant events throughout the duration of the emergency, as well as the decisions made by the incident commander and municipal CEO.

p) Continuously conduct emergency planning activities as it is a work-in-progress, periodically being reviewed and updated.

q) Understand your department's collective bargaining agreement as it pertains to emergencies (e.g. employee callbacks, pay rate changes.

CITY OF FLINT

EMERGENCY RESPONSE PROCEDURES

The following are procedures that the City of Flint conducts and coordinates with the county in response to a local state of emergency.

a) Information about a potential emergency should be directed to the Emergency Management Liaison (EML).

b) Assure that the municipal emergency response agencies, elected officials, and the county emergency management coordinator are notified of the situation.

c) Municipal agencies assess the nature and scope of the emergency or disaster.

d) If the situation can be handled locally, do so, using the following sequenced guidelines.

   a. The EML advises the CEO and coordinates all emergency response actions.

   b. The CEO declares a local state of emergency and notifies the county emergency management coordinator of this action.

   c. A local state of emergency declaration is forwarded to the county office.

   d. The emergency management liaison activates the emergency operations center (EOC). The EOC is located within Flint Fire Station #1 located at 310 E. Fifth St. If this location is unavailable an alternate locations is at the Genesee County Sheriff's Department.

   e. The EOC shall establish an incident tracking system such as the FBI's *Virtual Command Center.*

   f. Emergency Operations Center representatives are notified, through Genesee County 911, by the municipal Emergency Management Liaison to report to the EOC.

   g. The EML directs departments/agencies to respond to the emergency situation in accordance to each agency's functional guidelines indicated in the attachments to this plan. These departments/agencies shall report out their progress to the EOC on the hour.

   h. The CEO issues directives as to travel restrictions on local roads and recommends protective actions from the commanding agency. Protective action recommendations will be based on weather forecasting and if the incident complexity increases due to inability to respond rapidly and with a "ready" supply of resources to mitigate the incident.

   i. Notify the public officials, as well as the public, of the situation, through the Public Information Official, and take appropriate actions.

   j. Keep the county emergency management coordinator informed of the situation and actions taken.

e) If municipal resources become exhausted or if special resources are needed, request county assistance through the county emergency management coordinator.

f) If assistance is requested, the county emergency management coordinator assesses the situation and makes recommendations on the type/level of assistance. The County will also take the following steps:

1. Activate the County Emergency Operations Center
2. Activate the County Emergency Operations Plan/Emergency Action Guidelines
3. Respond with county resources as requested
4. Activate mutual aid agreements
5. Coordinate county resources with municipal resources
6. Notify Michigan State Police/ Emergency Management and Homeland Security (MSP/EMHSD) District Coordinator.
7. Develop a jurisdiction situation report and a damage and injury assessment report via and submit to the MSP/EMHSD.
8. Assist the municipality with prioritizing and allocating resources.

g) If county resources are exhausted, the county makes a request to the Governor to declare a state of emergency or state of disaster in accordance with procedures set forth in PA 390, as amended. The county shall not request state assistance or a declaration of a state of disaster or a state of emergency unless requested to do so by the CEO of City of Flint if the situation occurs solely within the confines of the municipality.

h) If state assistance is requested, the MSP/EMHSD District Coordinator, in conjunction with the county emergency management coordinator and municipal emergency management liaison, assess the disaster or emergency situation and recommends the necessary resources that are required for its prevention, mitigation, or relief efforts.

i) After completing the assessment the MSP/EMHSD District Coordinator immediately notifies the State Director of Emergency Management and Homeland Security of the situation.

j) The State Director of Emergency Management and Homeland Security notifies the Governor and makes recommendations.

k) If state assistance is granted, procedures are followed in accordance to the Michigan Emergency Management Plan and the County Emergency Operations Plan.

CITY OF FLINT

EMERGENCY ACTION GUIDELINES

The following attachments provide guidelines for each function that has been assigned to the agencies in response to an emergency or disaster situation.

Attachment A: Direction and Control
Attachment B: Fire Services
Attachment C: Law Enforcement
Attachment D: Warning and Communications
Attachment E: Public Information
Attachment F: Damage Assessment
Attachment G: Public Works
Attachment H: Emergency Medical Services
Attachment I: Human Services

Each agency assigned is responsible for maintaing the guidelines, as well as approving any changes to the guidelines or changes to the official responsible for implementation.

DIRECTION AND CONTROL

The Chief Executive Official, with support from the Emergency Management Liaison, is responsible for directing and controlling emergency management operations. The following guidelines represent a checklist of actions that the CEO and liaison must consider for providing an effective response to an emergency or disaster situation.

a) Declare a local state of emergency or disaster and notify the county emergency management office.

b) Issue orders and directives, i.e., travel restrictions, and recommend protective actions to be taken by the general public.

c) Activates and maintains the local emergency operations center.

d) Provide for continuity of operations.

e) Generate and disseminate information to the public via Public Information Official.

f) Seek federal post-disaster funds, as available, as well as pre-disaster assistance.

g) Maintain record of activity regarding decisions on emergency actions.

h) Review and evaluate assessment data.

i) Maintain liaison with state and federal officials.

j) Coordinate with County officials in response and recovery efforts.

k) Coordinate and conduct information sharing activities to identify potential and enacted WMD or terrorism activities, and mobilize and direct resources in response to such incidents.

l) Prepares and maintains an emergency plan for the municipality subject to the direction of the elected officials; reviews and updates as required.

m) Develops and maintains a trained staff and current emergency response checklists appropriate for the emergency needs and resources of the community.

n) Coordinate with State and federal officials in collecting and sharing terrorism related information.

The executive official(s) has reviewed and approves the assigned guidelines. These will be maintained in accordance to the most current standards of the county's emergency plan.

Signature of City Administrator — Date: 12-11-2015

Signature of Mayor — Date: 12-11-15

ATTACHMENT B

FIRE SERVICES

The Fire Department, is responsible for fire service actitivites. The following guidelines represent a checklist of actions that department officials must consider for providing an effective response to an emergency or disaster situation. In addition, the Chief of Fire, or his designee, is to serve as the Citys Emergency Management Liason.

a) Provide command level representatives to the EOC and Unified Incident Command Post, when activated.

b) Coordinates fire, and search and rescue services with appropriate personnel at the County Emergency Management Agency; including assistance to regional specialty teams such as, but not limited to, the Regional Response Team, MUSAR, and the Bomb Squad.

c) Coordinates with County EMC and the State of Michigan in the decontamination and monitoring of affected citizens and emergency workers after exposure to CBRNE hazards.

d) Assists with emergency alerting and notification of threatened population.

e) Assists with evacuation of affected citizens, especially those who are institutionalized, immobilized or injured.

f) Provides resources for fire services response and rescue operations.

g) Assists in salvage operations and debris clearance.

h) Advises elected officials about fire and rescue activities.

i) Conduct safety analysis of the emergency , inform and recommend corrections to the CEO.

j) Respond to hazardous materials spills in accordance to the procedures in Appendix 1.

k) Assist in search and rescue operations.

l) Assist in searching for bombs and/or explosive devices in connection with WMD events.

a) Maintain a daily log of expenditures for possible reimbursement from state or federal agencies.

Chief of Fire, David Cox Jr., has reviewed and approves the assigned guidelines. These will be maintained in accordance to the most current standards of the county's emergency plan.

Signature 9-23-14

Signature Date

ATTACHMENT B:
APPENDIX 1:

FIRE SERVICES

HAZMAT RESPONSE GUIDELINES

The Fire Department is responsible for the response to hazardous materials spills. However, through a Memorandum of Understanding, the Genesee County Hazmat Team, will respond and assume a supportive role. In the event Genesee County's team is unavailable, a mutual aid request can be made of Oakland County's Hazmat Team or Region 3 Regional Response Team Network. Private companies are an option as well. Until a Hazmat team responds, the Fire Department's response will be acted in accordance to the following procedures.

a) Assume incident command upon arrival at the scene.

b) Establish scene security or coordinate with other available agencies to establish scene security.

c) Monitor and evaluate environmental health risks or hazards from hazardous materials releases.

d) Inspect possible sources of contamination.

e) Provide technical assistance and liaison with other appropriate agencies or organizations for the remediation of hazardous waste releases and other contamination sources.

f) Disseminate information to the Emergency Operations Center Public Information Officer on hazardous material releases issues.

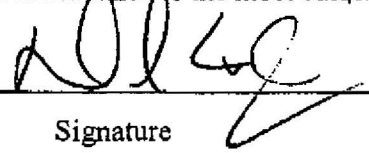
g) Makes protective action recommendations based on severity and complexity of incident type.

h) Ensure PPE is fit tested to responders.

i) Prior to proceding with cleanup, analyze and evaluate the contamination and safety factors of the spill by a certified Safety Officer/technician.

j) Decontaminate equipment and gear.

Chief of Fire, David Cox Jr., has reviewed and approves the assigned guidelines. These will be maintained in accordance to the most current standards of the county's emergency plan.



9-23-14

Signature Date

ATTACHMENT C

LAW ENFORCEMENT

The Police Department, is responsible for law enforcement actitivites. The following guidelines represent a checklist of actions that department officials must consider for providing an effective response to an emergency or disaster situation.

a) Develops and maintains procedures for the Police Department.

b) Coordinates security and law enforcement services; with appropriate personnel at the County Emergency Operations Center.

c) Establishes security and protection of critical infrastructure and facilities.

d) Provides traffic and access control in and around affected areas.

e) Assists with emergency alerting and notification of threatened population.

f) Assists with the evacuation of affected citizens, especially those who are institutionalized, immobilized or injured.

g) In cooperation with the Fire Department, performs search and rescue operations.

h) Implement any curfews ordered by the CEO.

i) Provides access control to affected areas.

j) Provide emergency assistance to persons with special/functional needs.

k) Investigate incident and provide intelligence information to state and federal officials.

l) Mitigates situations involving explosives through the department's Bomb Squad. Additional resources can be obtained through the Michigan State Police Bomb Squad or the ATF

m) Maintain a daily log of expenditures for possible reimbursement from state or federal agencies.

n) Designate a representative for the Emergency Operations Center.

Chief of Police, James Tolbert, has reviewed and approves the assigned responsibilities. These responsibilities will be maintained in accordance to the most current standards of the county's emergency plan.

Signature

9-23-14

Date

WARNING AND COMMUNICATIONS

The Genesee County 911 (GCCD) is responsible for warning and communications actitivites. The following guidelines represent a checklist of actions that department officials must perform in order to provide an effective response to an emergency or disaster situation.

a) Genesee County 911 will warn the Emergency Management Liason as well as the Police and Fire Departments. The Emergency Management Liason will then direct Genesee County 911 to contact the following as he/she deems necessary:
   - Chief Executive Official
   - Emergency Operations Center Representatives
   - Genesee County Emergency Coordinator
   - Surrounding communities or agencies that may be needed for mutual aid.

b) Provide the necessary support to maintain communications at the City Emergency Operations Center.

c) Establish communications with the county Emergency Operations Center if activated. The communications equipment available for this link is 800 MHz radios, telephone and cell phones.

d) Establish communications with the Incident Command Post, if established.

e) Coordinate with Genesee County to activate appropriate public warning systems (e.g. Emergency Alert System, Code Red). Public warning can also be done via television and/or radio by CEO or his/her designee.

f) Activate procedures for notification of special needs population in the area.

g) Assist contacting and warning special facilities and locations, such as schools, hospitals, nursing homes, major industries, institutions, and place of public assembly.

h) Maintain a daily log of expenditures for possible reimbursement from state or federal agencies.

Genesee County 911, Dave Ackley has reviewed and approves the assigned responsibilities. These responsibilities will be maintained in accordance to the most current standards of the county's emergency plan.

David Ackley 12-11-15

Signature Date

ATTACHMENT E:
APPENDIX 1

PUBLIC INFORMATION

The City of Flint Public Information Official is responsible for public information actitivites. The following guidelines represent a checklist of actions that the PIO must consider for providing an effective response to an emergency or disaster situation.

a) Function as the sole point of contact for public officials, including Flint City Council and the City Clerk, as well as the news media.

b) Collect information from municipal emergency response agencies located in the emergency operations center and other locations.

c) Prepare news releases to be disseminated to the local media.

d) Conduct press tours of disaster area(s) within the community.

e) Establish a Public Information Center to become the central point from which news releases are issued.

f) Establish and maintain contact with the County Public Information Official if the County's Emergency Operations Plan is activated.

g) Coordinate public information activities with the county Public Information Officer if the County Emergency Operations Center is activated.

h) Assist the county in establishing a joint information center (JIC).

i) Assist the county with establishing a Rumor Control Center.

j) Assist the municipal emergency management liaison in developing and distributing education material on the hazards that face the municipality.

k) Develop and maintain Emergency/Public Information procedures.

l) Maintain a log and file of all information released to the media.

m) Manage Social Media outlets.

n) Respond to EOC when requested.

n) Maintain a daily log of expenditures for possible reimbursement from state or federal agencies.

Public Information Official, Appointee, Sean Kammer, has reviewed and approves the assigned responsibilities. These responsibilities will be maintained in accordance to the most current standards of the county's emergency plan.

Signature

12/11/2015
Date

PUBLIC INFORMATION:

CITY COUNCIL

Flint City Council members will play a crucial role in disseminating information to their constituents. Invariably, they will be inundated with calls during an emergency. The following guidelines represent a checklist of actions that the Public Information Official should consider in order to provide an effective communication plan with Council members.

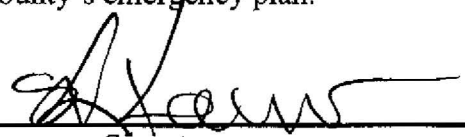
a) In conjunction with City Council, develop procedure for the initial notification of an emergency. This should include a specific Council member and his/her contact information, as well as second and third alternate Council members. This Councilperson shall then notify all other Council members.

b) Provide written status reports to the Council. This should be done as often as necessary in order to keep the Council updated on the current status of the incident.

c) Establish an avenue of communication, to the EOC, that allows Council members to provide information and/or ask questions that have been presented to them by their constituents.

d) Relay instructions/orders for the public, originating out of the EOC, to the Council so they can, in turn, relay them to citizens. This information should be presented to the Council in written form.

The Public Information Official, Sean Kammer, has reviewed and approves the assigned responsibilities. These responsibilities will be maintained in accordance to the most current standards of the county's emergency plan.



Signature

12/11/2015

Date

ATTACHMENT F

DAMAGE ASSESSMENT

The **Assessor's Office**, is responsible for damage assessment actitivites. The following guidelines represent a checklist of actions that department officials must consider for providing an effective response to an emergency or disaster situation.

a) Record initial information from first responders such as law enforcement, fire services, and public works.

b) If necessary, activate a damage assessment field teams via departmental protocol.

c) Provide information to the municipal Emergency Management Liaison. The Liaison will then provide assessment data to the county for preparation of a jurisdictional damage report.

d) If the situation warrants, assist the municipal CEO with the preparation of a local state of emergency declaration and forward to the County Emergency Management Coordinator.

e) Prepare a request for county assistance in conjunction with the municipal Emergency Management Liaison.

f) Plot damage assessment information on status boards in the municipal Emergency Operations Center.

g) Record all expenditures for municipal personnel, equipment, supplies, services, etc., and track resources being used.

h) Prepare reports for the municipal public information official.

i) Coordinate with County Damage Assessment Office (Equalization Director) in large events that involve County activation.

j) Fill out required forms in EMD-PUB 901 Damage Assessment Handbook and forward to County Damage Assessment Officer.

k) Designate a representative for the Emergency Operations Center.

The City Assessor, William E. Fowler, has reviewed and approves the assigned responsibilities. These responsibilities will be maintained in accordance to the most current standards of the county's emergency plan.

William E. Fowler 9-23-14

Signature Date

PUBLIC WORKS

The **Department of Public Works (DPW)** is responsible for maintaining, preserving and/or restoring the Citys public services. The following guidelines represent a checklist of actions that department officials must consider for providing an effective response to an emergency or disaster situation.

a) Assess resources that are available at the time of the incident.

b) If necessary, coordinate activities designed to control the flow of flood water, including sandbagging, emergency diking, and pumping operations.

c) Coordinate travel restrictions/road closures within the municipality.

d) Identify evacuation routes.

e) Provide emergency generators and lighting.

f) Maintain transportation routes and assist with traffic control.

g) Assist with access control.

h) Assist with urban search and rescue activities, i.e., persons trapped in damaged buildings or under heavy debris/objects.

i) Assist private utilities with the shutdown and restoration of gas and electric services.

j) Assist with transportation of essential goods, i.e., food, medical supplies.

k) As necessary, establish a staging area for public works.

l) Report damage information to the Damage Assessment Team.

m) If necessary, assist with damage surveys for the federal public assistance grant program.

n) If the county Emergency Operations Center is activated, establish and maintain contact with the person representing public works.

o) Notify Law Enforcement of the location(s) of disabled vehicles.

p) Inspect critical infrastructure and other public utilities for safety. This should be done in conjunction with the City's Building Safety Department.

q) Maintain a daily log of expenditures for possible reimbursement from state or federal agencies.

r) Assist the Fire Department in response efforts to hazmat incidents.

Public Works Director, Kay Muhammad, has reviewed and approves the assigned responsibilities. These responsibilities will be maintained in accordance to the most current standards of the county's emergency plan.

Kay Muhammad 12/11/15

Signature Date

ATTACHMENT H

EMERGENCY MEDICAL SERVICES

The Flint Fire Department EMS Supervisor is responsible for emergency medical service actitivites. He/She shall oversee the implementation of the Genesee County Medical Control Authority (GCMCA) Mass Casualty Incident Protocol should it be necessary. The following points represent a checklist of actions that agency officials must consider for providing an effective response to an emergency or disaster situation.

a) Assist evacuating nursing homes, hospitals, and other medical facilities.

b) Assist with decontamination.

c) Coordinate emergency medical care to victims.

d) Identify a facility to be used as a temporary morgue if necessary.

e) Coordinate with hospitals and shelter managers to staff medical teams at shelters.

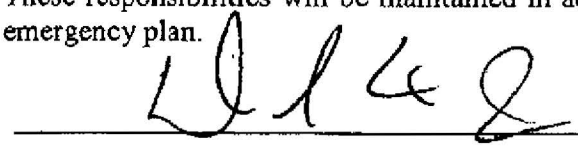
f) When appropriate, coordinate field units' participation in damage assessment activities.

g) Ensure that emergency medical teams responding on-scene have established an on-scene medical command post and a medical commander.

h) Maintain a daily log of expenditures for possible reimbursement from state or federal agencies.

i) Designate a representative for the Emergency Operations Center.

EMS Supervisor, Carrie Edwards-Clemons, has reviewed and approves the assigned responsibilities. These responsibilities will be maintained in accordance to the most current standards of the county's emergency plan.



9-23-14

Signature Date

ATTACHMENT I

HUMAN SERVICES

The Emergency Management Liaison, or his designee, will serve as the Human Services Liaison and will be responsible for human services activities. The liaison will coordinate and/or keep informed human services activities occuring within the city, with Genesee County Departments of Human Services (GCDHS). The following points represent a checklist of actions that the liaison must consider for providing an effective response to an emergency or disaster situation.

a) Coordinate all human services activities through the County Emergency Manager.

b) Coordinate the provision of transportation for evacuation. Mass Transportation Authority (MTA) will be a resource for this task.

c) Open and manage shelters in the municipality. The American Red Cross (ARC) will be a resource for this task.

d) Set up canteen to feed emergency workers in the municipality. ARC will be a resource for this task.

e) Provide food and clothing to municipality workers and victims of disaster residing in the municipality.

f) Assist the county and the City PIO, with establishing a Rumor Control Center.

g) Arrange for provision of Crisis Counseling or Critical Incident Stress Debriefing (CISD) for both victims and identified disaster workers.

h) If the County Emergency Operations Center is activated, establish and maintain contact with the person representing Human Services. If the county Emergency Operations Center is not activated, establish and maintain contact with the county Human Services Official directly at the county Department of Human Services.

i) Coordinate with ARC and other pertinent organizations for the distribution of emergency clothing for disaster victims.

j) Coordinate efforts to provide transportation for disaster victims. Consider local school buses or MTA.

k) Coordinate animal and pet control. Genesee County Animal Control will be a resource for this task.

l) Implementation of a family reunification system. ARC will be a resource for this task.

m) Maintain a daily log of expenditures for possible reimbursement from state or federal agencies.

These responsibilities will be maintained in accordance to the most current standards of the county's emergency plan.

Signature of official — Date: 9-23-14

HUMAN SERIVCES:

RESOURCES AND SUPPORT SERVICES

AGENCY	CONTACT #	ALTERNATE #(S)
Genessee County Emergency Manager	Jenifier Boyer 810.223.5252	[redacted]
Mass Transportation Authority –Flint	Manager of Operations Derek Williams 810.293.0645	Chris Schoemann 810.931.4609
American Red Cross –Flint	Disaster ActionTeam Member 810.620.7875	
United Way of Genesee County	Jamie Gaskin 810.762.0855	
Resourcre Genesee	Lindsey Younger 810.232.6253	
Salvation Army	Major Jon Augenstein 810.730.6559	Major Tim Parker 810.259.5417
Genesee County Animal Control	Director Stepheni Lazar 810.577.1606	[redacted]

From: Leix, Ron (MSP)
Sent: Monday, January 04, 2016 12:55 PM
To: Holland, Meegan (GOV)
Cc: Banner, Shanon (MSP)
Subject: RE: My part of the statement

Hi Meegan,

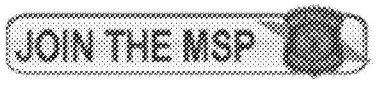
A quick overview about what takes place next.

Thanks,

Ron

Ron Leix
Public Information Officer (PIO)
Emergency Management
and Homeland Security Division
Michigan State Police
4000 Collins Road
Lansing, MI 48910
TX: (517) 336-6464
[redacted]

"A PROUD tradition of SERVICE through EXCELLENCE, INTEGRITY, and COURTESY"



==========

- The Michigan State Police, Emergency Management and Homeland Security Division is working with the Genesee County Emergency Management Coordinator to gather information about the resources needed for a Governor's declaration.
    - The state police has been closely engaged in the situation since the beginning of this crisis, meeting with both county and city officials to guide them through the emergency management process. Due to the uniqueness of this situation, we have to look at all possible options to help Flint residents.
- Beginning immediately, we're viewing this as an emergency and are not waiting to get moving on this problem. We're working closely with Mayor Weaver and other city and county officials to bring together state, county and city agencies and stakeholders to coordinate efforts and streamline communication.

From: Holland, Meegan (GOV)
Sent: Monday, January 04, 2016 11:52 AM

To: Leix, Ron (MSP)
Subject: My part of the statement

Ron – quick overview of next steps and then….

But we aren't waiting for a declaration. We're viewing this as an emergency, regardless of whether it meets any legal definition. We believe we must not wait to get moving on this problem. We're working closely with Mayor Weaver and other city and county officials to bring together state, county and city agencies and stakeholders to coordinate efforts and streamline communication.

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
[redacted]
Twitter: @meholland

JOIN THE MSP

From: Leix, Ron (MSP)
Sent: Monday, January 04, 2016 12:58 PM
To: Holland, Meegan (GOV)
Subject: RE: My part of the statement
Attachments: Fact Sheet - Emergency or Disaster Declaration Process.pdf

Sorry for the delay. Here's a fact sheet that goes through the process too.

--Ron

From: Holland, Meegan (GOV)
Sent: Monday, January 04, 2016 12:56 PM
To: Leix, Ron (MSP)
Subject: RE: My part of the statement

Thanks – I'll put it all together with Dave M.'s help and will get back to you!

- Meegan

From: Leix, Ron (MSP)
Sent: Monday, January 04, 2016 12:55 PM
To: Holland, Meegan (GOV) <HollandM2@michigan.gov>
Cc: Banner, Shanon (MSP) <BannerS@michigan.gov>
Subject: RE: My part of the statement

Hi Meegan,

A quick overview about what takes place next.

Thanks,

Ron

Ron Leix
Public Information Officer (PIO)
Emergency Management
and Homeland Security Division
Michigan State Police
4000 Collins Road
Lansing, MI 48910
TX: (517) 336-6464
[redacted]

"A PROUD tradition of SERVICE through EXCELLENCE, INTEGRITY, and COURTESY"

==========

- The Michigan State Police, Emergency Management and Homeland Security Division is working with the Genesee County Emergency Management Coordinator to gather information about the resources needed for a Governor's declaration.

    - The state police has been closely engaged in the situation since the beginning of this crisis, meeting with both county and city officials to guide them through the emergency management process. Due to the uniqueness of this situation, we have to look at all possible options to help Flint residents.

- Beginning immediately, we're viewing this as an emergency and are not waiting to get moving on this problem. We're working closely with Mayor Weaver and other city and county officials to bring together state, county and city agencies and stakeholders to coordinate efforts and streamline communication.

From: Holland, Meegan (GOV)
Sent: Monday, January 04, 2016 11:52 AM
To: Leix, Ron (MSP)
Subject: My part of the statement

Ron – quick overview of next steps and then….

But we aren't waiting for a declaration. We're viewing this as an emergency, regardless of whether it meets any legal definition. We believe we must not wait to get moving on this problem. We're working closely with Mayor Weaver and other city and county officials to bring together state, county and city agencies and stakeholders to coordinate efforts and streamline communication.

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
[redacted]
Twitter: @meholland

December 2014

Fact Sheet

Emergency or Disaster Declaration Process

The Michigan Emergency Management Act (Public Act 390 of 1976, as amended) outlines the emergency management process for the state of Michigan. If an incident exhausts state resources, the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 USC §§ 5121-5207) establishes the process for requesting and obtaining a presidential disaster declaration and assistance from the federal government.

STEP BY STEP: Emergency or Disaster Declaration Process

1. Disasters are first and foremost local events. Most disasters are handled by local government with minimal or no state assistance. At the onset of a disaster or emergency, local emergency responders, joined by volunteers and the private sector, are the first to be involved.

2. A local jurisdiction may declare a "Local State of Emergency" exists when they have sustained widespread or severe damage, injury or loss of life or property. A local declaration ensures the response and recovery aspects of the emergency operations plan have been activated, and local resources are being utilized to the fullest extent possible. Authorities may authorize local aid and assistance.

3. If recovery efforts are beyond the ability of local government, the community may turn to the state to request assistance. All requests for assistance are channeled through the Michigan State Police, Emergency Management and Homeland Security Division.

4. The Michigan State Police, Emergency Management and Homeland Security Division reviews specific requests for state assistance and makes recommendations to the Governor's Office. The Governor's authority, granted by the Michigan Emergency Management Act, may include mobilizing state government agencies to provide necessary support and assistance to local authorities under a "State of Emergency" or "State of Disaster" declaration.

5. If state and local government resources are unable to cope with the emergency or disaster, the Governor may request assistance through the U.S. Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA), Region V Office in Chicago.

6. At the request of the Governor, FEMA may conduct a Preliminary Damage Assessment (PDA) in cooperation with state and local emergency management officials. The results of the PDA will be reviewed by state officials and the Governor's Office and used as a basis for determining whether to request federal financial assistance.

7. Should the state request federal disaster assistance, FEMA will review the request and make a recommendation to the president, who will make the final determination on any disaster aid to be provided to the state. The goal of disaster assistance is not to make individuals, businesses or government entities whole again, but to restore the community to a level that meets expected health and safety considerations.

JOIN THE MSP

From: Leix, Ron (MSP)
Sent: Monday, January 04, 2016 5:25 PM
To: Holland, Meegan (GOV)
Subject: RE: My part of the statement

I bet it will be! As its stand right now, Shanon or Tiffany will be there.

--Ron

From: Holland, Meegan (GOV)
Sent: Monday, January 04, 2016 1:06 PM
To: Leix, Ron (MSP)
Subject: RE: My part of the statement

Ahhh good – this helps!

Are you coming to the PIO meeting tomorrow at 10:30? I think it'll be pretty interesting.

From: Leix, Ron (MSP)
Sent: Monday, January 04, 2016 12:58 PM
To: Holland, Meegan (GOV) <HollandM2@michigan.gov>
Subject: RE: My part of the statement

Sorry for the delay. Here's a fact sheet that goes through the process too.

--Ron

From: Holland, Meegan (GOV)
Sent: Monday, January 04, 2016 12:56 PM
To: Leix, Ron (MSP)
Subject: RE: My part of the statement

Thanks – I'll put it all together with Dave M.'s help and will get back to you!

- Meegan

From: Leix, Ron (MSP)
Sent: Monday, January 04, 2016 12:55 PM
To: Holland, Meegan (GOV) <HollandM2@michigan.gov>
Cc: Banner, Shanon (MSP) <BannerS@michigan.gov>
Subject: RE: My part of the statement

Hi Meegan,

A quick overview about what takes place next.

Thanks,

Ron

Ron Leix
Public Information Officer (PIO)
Emergency Management
and Homeland Security Division
Michigan State Police
4000 Collins Road
Lansing, MI 48910
TX: (517) 336-6464
[redacted]

"A PROUD tradition of SERVICE through EXCELLENCE, INTEGRITY, and COURTESY"

==========

- The Michigan State Police, Emergency Management and Homeland Security Division is working with the Genesee County Emergency Management Coordinator to gather information about the resources needed for a Governor's declaration.
    - The state police has been closely engaged in the situation since the beginning of this crisis, meeting with both county and city officials to guide them through the emergency management process. Due to the uniqueness of this situation, we have to look at all possible options to help Flint residents.
- Beginning immediately, we're viewing this as an emergency and are not waiting to get moving on this problem. We're working closely with Mayor Weaver and other city and county officials to bring together state, county and city agencies and stakeholders to coordinate efforts and streamline communication.

From: Holland, Meegan (GOV)
Sent: Monday, January 04, 2016 11:52 AM
To: Leix, Ron (MSP)
Subject: My part of the statement

Ron – quick overview of next steps and then….

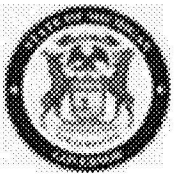
But we aren't waiting for a declaration. We're viewing this as an emergency, regardless of whether it meets any legal definition. We believe we must not wait to get moving on this problem. We're working closely with Mayor Weaver and other city and county officials to bring together state, county and city agencies and stakeholders to coordinate efforts and streamline communication.

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
[redacted]
Twitter: @meholland

JOIN THE MSP

From: Murray, David (GOV)
Sent: Tuesday, January 05, 2016 9:22 AM
To: Holland, Meegan (GOV)
Subject: FW: Comment sought on Flint Water ASAP

Dave Murray
Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted] mobile
Twitter:@michigandmurray



From: Gary Ridley [mailto:GRIDLEY@mlive.com]
Sent: Tuesday, January 05, 2016 9:22 AM
To: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: Comment sought on Flint Water ASAP

Dave,
I just got a confirmation from the U.S. Attorney's Office that it is investigating the Flint water situation. It isn't releasing specifics, but I wanted to give you a chance to respond to this news.

I am typing up something right now and will be posting ASAP.

Thanks.

--
Gary Ridley | The Flint Journal-MLive Media Group | 810-280-9516 | gridley@mlive.com

To: Calley, Brian (GOV)
Subject: RE: BRIEFING: Auditor General answers on Flint water situation

Governor Calley,

I've made a note to check on Monday about the OAG release.

And I like your summary of the three points we need to convey. It won't change the coverage by the Freep, Rachel Maddow or Michigan Radio, but it will humanize Gov. Snyder in the eyes of many who are wondering if we have anything to hide.

Regards,
Meegan

From: Calley, Brian (GOV)
Sent: Thursday, December 24, 2015 9:02 AM
To: Holland, Meegan (GOV) <HollandM2@michigan.gov>
Cc: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Walsh, John (GOV) <WalshJ@michigan.gov>; Snyder, Rick (GOV) [redacted] Clement, Elizabeth (GOV) <clemente@michigan.gov>; Scott, Allison (GOV) <scotta12@michigan.gov>
Subject: Re: BRIEFING: Auditor General answers on Flint water situation

We should ask that it be released soon. It's hard to explain why it would not be made public just as other actions from the Auditor are.

On Dec 24, 2015, at 8:38 AM, Holland, Meegan (GOV) <{HYPERLINK "mailto:HollandM2@michigan.gov"}> wrote:

> It was provided to Sen. Ananich at close of business day yesterday. We're waiting to see what Sen. Ananich does with the letter. I don't know if the Auditor General will actually release it, since it was a response to Sen. Ananich's questions.
>
> Regards,
> Meegan
>
> **From:** Calley, Brian (GOV)
> **Sent:** Thursday, December 24, 2015 8:36 AM
> **To:** Holland, Meegan (GOV) <{HYPERLINK "mailto:HollandM2@michigan.gov"}>
> **Cc:** Agen, Jarrod (GOV) <{HYPERLINK "mailto:AgenJ@michigan.gov"}>; Baird, Richard (GOV) <{HYPERLINK "mailto:bairdr@michigan.gov"}>; Hollins, Harvey (GOV) <{HYPERLINK "mailto:hollinsh@michigan.gov"}>; Walsh, John (GOV) <{HYPERLINK "mailto:WalshJ@michigan.gov"}>; Snyder, Rick (GOV) <{HYPERLINK "mailto[redacted]"}>; Clement, Elizabeth (GOV) <{HYPERLINK "mailto:clemente@michigan.gov"}>; Scott, Allison (GOV) <{HYPERLINK "mailto:scotta12@michigan.gov"}>
> **Subject:** Re: BRIEFING: Auditor General answers on Flint water situation

Great summary. Thank you.

Is this on publicly released yet?

On Dec 24, 2015, at 8:07 AM, Holland, Meegan (GOV) <{HYPERLINK "mailto:HollandM2@michigan.gov"}> wrote:

Colleagues:

Here is a summary of answers from the Office of the Auditor General in response to questions mostly posed by Sen. Jim Ananich's office (the auditor added a few questions in the 11-page report). The questions came as the OAG conducts an audit of the Office of Drinking Water and Municipal Assistance's handling of the Flint water crisis.

Conclusions:

While the City Council voted in March 2013 to move to the KWA pipeline, it didn't designate the Flint River as an interim water source. But the DEQ had approved the river as a backup source for emergency purposes in 2006. The treated water met safety standards in quarterly tests by the Flint WTP, but Flint had never tested its effect on the distribution system.

In an email review of key DEQ managers to determine if there was an effort to conceal information, only one email exchange raised red flags. The EPA had asked DEQ in February 2015 if Flint had a corrosion control program; the DEQ responded the city had an optimized program in place. But in April the EPA asked again, and the DEQ said that the Flint Water Treatment Plant (WTP) was not doing corrosion control. DEQ later explained that its first response referred to its program to monitor a new water source (in this case, the Flint river) for lead/copper for two consecutive six-month periods to determine optimal corrosion treatment. The report says there's no reason to believe that DEQ willfully misrepresented information to the EPA. It also concludes that ODWMA employees appeared to have notified management properly about the unfolding Flint water situation.

DEQ did not consult with the EPA on how best to apply the Lead and Copper Rule (LCR) monitoring practices after the switch to Flint water, but from past experience, DEQ believed it was doing so correctly by doing two rounds of six-month monitoring on the new water source before determining optimal corrosion control. The EPA disagreed with DEQ's interpretation of the LCR, but later stated that the LCR was open to interpretation. It then clarified the rule; the upshot: corrosion controls already in place when Flint was on Detroit water should have been maintained after the switch.

DEQ should have notified the Flint WTP to start corrosion controls once the first round of six-month sampling results arrived in late March 2015 and showed the water exceeded acceptable lead levels.

DEQ doesn't oversee the Flint WTP so it doesn't have any accountability measures to ensure the WTP is collecting water samples from tier 1 homes, i.e., residences with lead service lines, soldering or plumbing. Instead, DEQ relies on Flint's certification of sample sites. The auditor suggests DEQ should consider an

independent verification of the sampling pool or Flint's certifications. In November 2015, Flint admitted that it had no way to ensure the sites were all tier 1. Water samples came from 175 randomly distributed testing bottles. DEQ has asked Flint to verify its prior samples by this Wednesday (12/30).
There's been controversy that DEQ dropped two sampling sites with high lead levels from its second six-month review. It was appropriate for DEQ to do so because those sites did not meet federal criteria. It was also appropriate for DEQ to require flushing taps the night before sampling to ensure faucets didn't contain overly stagnant water.
Charts show that most water samples were taken in the sixth month of the six-month testing period. The report said it's tough to determine if the lateness of the sampling affects the accuracy.
The report ends with an excellent timeline. I have attached the report in case you want to review the timeline on page 11.

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
Mobile: [redacted]
Twitter: @meholland

<Auditor General Letter - City of Flint Drinking Water (002).pdf>

To: Baird, Richard (GOV); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Kelenske, Chris (MSP); Murray, David (GOV); Redford, James (GOV); Becker, Timothy (DHHS); Creagh, Keith (DNR); Roberts, John (DTMB)
CC: Etue, Kriste (MSP); Lyon, Nick (DHHS)
Subject: RE: Attorney Client Work Product (Draft), Privileged and Confidential

From: Baird, Richard (GOV)
Sent: Wednesday, December 30, 2015 6:57 PM
To: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Kelenske, Chris (MSP) <KelenskeC@michigan.gov>; Holland, Meegan (GOV) <HollandM2@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; Redford, James (GOV) <RedfordJ@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Creagh, Keith (DNR) <creaghk@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>
Cc: Etue, Kriste (MSP) <EtueK@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>
Subject: Attorney Client Work Product (Draft), Privileged and Confidential

Team:

Today Harvey and I met with the Flint Water Task Force. It was a good meeting. People were pleased with the G's statement from the prior day. Captain Kelenske joined us and we had a very good discussion about moving forward with the creation of the Flint Water Crisis Agency Coordinating Committee (FIACC). Tim Becker and Captain Kelenske provided me with a fair amount of input. I also read the City of Flint Incident Action Plan for a State of Emergency which Chris received today (enclosed for those who wish to read it as well). I have distilled all of this into a two page plan that I want your edits and comments on and a one page organizational chart (now presented in the "governor's colors" according to our fine people in Communications). Spoiler alert—I made Captain Kelenske Vice Chair of the whole shebang (with the Colonel's blessing) so Harvey wouldn't get lonely.

Here is my ask of you:

1) Within 24 (sooner if you can) hours give me your comments and input
2) Tomorrow I will turn around a final document for Jarrod to review with the Governor either New Year's Day or Saturday
3) Ideally, Governor will approve Harvey sending it to Mayor Weaver Saturday (Sunday latest)
4) Mayor needs to know that this is what the Governor wishes to discuss at the meeting January 7 along with financial resources that we still need some estimates on cost from DHHS for
5) Meegan and Dave need to noodle how best to get out front with this and change

the narrative focus on Monday's Genesee County declaration of emergency
I know we are all working way too hard for what should be a rest and recharge period but I do appreciate everyone's efforts and I know the Boss really does as well.

Regards,

Rich

To: Becker, Timothy (DHHS); Baird, Richard (GOV); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Kelenske, Chris (MSP); Murray, David (GOV); Redford, James (GOV); Creagh, Keith (DNR); Roberts, John (DTMB)
CC: Etue, Kriste (MSP); Lyon, Nick (DHHS)
Subject: RE: Attorney Client Work Product (Draft), Privileged and Confidential

Thanks for sharing that plan, Tim!

Happy New Year everyone … and Go Green!
- Meegan

From: Becker, Timothy (DHHS)
Sent: Wednesday, December 30, 2015 11:35 PM
To: Baird, Richard (GOV) <bairdr@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Kelenske, Chris (MSP) <KelenskeC@michigan.gov>; Holland, Meegan (GOV) <HollandM2@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; Redford, James (GOV) <RedfordJ@michigan.gov>; Creagh, Keith (DNR) <creaghk@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>
Cc: Etue, Kriste (MSP) <EtueK@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>
Subject: RE: Attorney Client Work Product (Draft), Privileged and Confidential

Attached is a supplemental MDHHS advanced to SBO today (John: Farah sent to Nancy, Harkins, and team). This addresses surveillance, case management, and lead abatement in homes including pipes. It does not yet establish the long-term "health fund" some have advocated for. On the proposal document I concur with Director Creagh's and Mr. Redford's suggestions on a slight re-wording of statement of need. I am comfortable with the general framework of the group. I agree with Captain Kelenske that the state needs to lead the group. I think with the Executive and MSP chairing the state is providing the requested prospective leadership. We have built in extensive participation from city, county, and subject matter experts and we will be completely transparent with all partners.

From: Baird, Richard (GOV)
Sent: Wednesday, December 30, 2015 6:57 PM
To: Agen, Jarrod (GOV) <{HYPERLINK "mailto:AgenJ@michigan.gov"}>; Clement, Elizabeth (GOV) <{HYPERLINK "mailto:clemente@michigan.gov"}>; Hollins, Harvey (GOV) <{HYPERLINK "mailto:hollinsh@michigan.gov"}>; Kelenske, Chris (MSP) <{HYPERLINK "mailto:KelenskeC@michigan.gov"}>; Holland, Meegan (GOV) <{HYPERLINK "mailto:HollandM2@michigan.gov"}>; Murray, David (GOV) <{HYPERLINK "mailto:MurrayD1@michigan.gov"}>; Redford, James (GOV) <{HYPERLINK "mailto:RedfordJ@michigan.gov"}>; Becker, Timothy (DHHS) <{HYPERLINK "mailto:beckert1@michigan.gov"}>; Creagh, Keith (DNR) <{HYPERLINK "mailto:creaghk@michigan.gov"}>; Roberts, John (DTMB) <{HYPERLINK "mailto:RobertsJ9@michigan.gov"}>

Cc: Etue, Kriste (MSP) <{HYPERLINK "mailto:EtueK@michigan.gov"}>; Lyon, Nick (DHHS) <{HYPERLINK "mailto:LyonN2@michigan.gov"}>
Subject: Attorney Client Work Product (Draft), Privileged and Confidential

Team:

Today Harvey and I met with the Flint Water Task Force. It was a good meeting. People were pleased with the G's statement from the prior day. Captain Kelenske joined us and we had a very good discussion about moving forward with the creation of the Flint Water Crisis Agency Coordinating Committee (FIACC). Tim Becker and Captain Kelenske provided me with a fair amount of input. I also read the City of Flint Incident Action Plan for a State of Emergency which Chris received today (enclosed for those who wish to read it as well). I have distilled all of this into a two page plan that I want your edits and comments on and a one page organizational chart (now presented in the "governor's colors" according to our fine people in Communications). Spoiler alert—I made Captain Kelenske Vice Chair of the whole shebang (with the Colonel's blessing) so Harvey wouldn't get lonely.

Here is my ask of you:

1) Within 24 (sooner if you can) hours give me your comments and input
2) Tomorrow I will turn around a final document for Jarrod to review with the Governor either New Year's Day or Saturday
3) Ideally, Governor will approve Harvey sending it to Mayor Weaver Saturday (Sunday latest)
4) Mayor needs to know that this is what the Governor wishes to discuss at the meeting January 7 along with financial resources that we still need some estimates on cost from DHHS for
5) Meegan and Dave need to noodle how best to get out front with this and change the narrative focus on Monday's Genesee County declaration of emergency

I know we are all working way too hard for what should be a rest and recharge period but I do appreciate everyone's efforts and I know the Boss really does as well.

Regards,

Rich

From: Holland, Meegan (GOV)
Sent: Tuesday, December 22, 2015 4:52 PM
To: Baird, Richard (GOV)
Subject: RE: Meeting with Dr. Mona Hanna-Attisha and Flint Water

Thanks for keeping us in the loop, Rich.

It's immensely helpful to Dave and me to know what lies ahead so we can craft our message accordingly.

Also, thanks for that lovely bottle of wine. I hope you and Linda have a wonderful holiday ... and I also hope I don't have to bug you during your time off, but I'm not going to guarantee it!

- Meegan

-----Original Message-----
From: Baird, Richard (GOV)
Sent: Tuesday, December 22, 2015 4:27 PM
To: Holland, Meegan (GOV) <HollandM2@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: FW: Meeting with Dr. Mona Hanna-Attisha and Flint Water

These are all the areas where long term vigilance needs to be happening.

-----Original Message-----
From: Mona Hanna-Attisha [mailto:MHanna1@hurleymc.com]
Sent: Tuesday, December 15, 2015 7:40 AM
To: Lyon, Nick (DHHS)
Cc: Baird, Richard (GOV); Laurence Reynolds; Matthew M. Davis; Chris Kolb; Ken Sikkema; Chris De Witt; Eric Rothstein; Hollins, Harvey (GOV)
Subject: RE: Meeting with Dr. Mona Hanna-Attisha and Flint Water

attached

-----Original Message-----
From: Lyon, Nick (DHHS) [mailto:LyonN2@michigan.gov]
Sent: Tuesday, December 15, 2015 6:26 AM
To: Mona Hanna-Attisha
Cc: Baird, Richard (GOV); Laurence Reynolds; Matthew M. Davis; Chris Kolb; Ken Sikkema; Chris De Witt; Eric Rothstein; Hollins, Harvey (GOV)
Subject: Re: Meeting with Dr. Mona Hanna-Attisha and Flint Water

Thank you for the presentation and your approach to this. When you can please share a version of the presentation I can pass in to Sue, Eden and the others in my Population Health area.

Nick

> On Dec 14, 2015, at 7:05 PM, Mona Hanna-Attisha <MHanna1@hurleymc.com> wrote:

>
>
> Mr. Baird and all the other guys,
>
> It was a pleasure meeting everyone and a privilege to present to you all. As I said, we have an incredible and unique opportunity to mitigate the impact of this population-wide exposure. If we act now, proactively, we can buffer our kids from the life-altering impacts of lead poisoning.
>
> Flint has many claims to fame (we put the world on wheels, we birthed Mr. Baird!, etc); and now, with your leadership, we can continue to build generations of strong, smart, and healthy children.
>
> If I can be of any further assistance, please don't hesitate to contact me. Email or cell [redacted]
>
> Thanks again, Mona
>
> Mona Hanna-Attisha MD MPH FAAP
> Program Director Pediatric Residency
> Hurley Children's Hospital at Hurley Medical Center Michigan State
> University College of Human Medicine Department of Pediatrics and
> Human Development Mhanna1@hurleymc.com<mailto:Mhanna1@hurleymc.com>
> _____
> From: Baird, Richard (GOV) [bairdr@michigan.gov]
> Sent: Thursday, December 10, 2015 2:27 PM
> Required: Baird, Richard (GOV); Laurence Reynolds; Matthew M. Davis;
> Chris Kolb; Ken Sikkema; Chris De Witt; 'Eric Rothstein'; Lyon, Nick
> (DHHS); Grijalva, Nancy (DHHS); Mona Hanna-Attisha
> Subject: Meeting with Dr. Mona Hanna-Attisha and Flint Water
> When: Monday, December 14, 2015 11:00 AM-12:00 PM.
> Where: Governor's Conference Room, 2nd Floor Romney Building, 111 S.
> Capitol Ave., Lansing, MI 48933
>
> Good Morning,
>
> This is to confirm the meeting with Rich Baird on Monday, December 14 at 11:00 a.m. in the Governor's Conference room, second floor Romney Building, 111 S. Capitol Ave. Lansing, MI 48933.
>
> We are located at the George W. Romney Building, 111 S. Capitol
> Avenue, Lansing. The Romney Building is located directly across the
> street (Capitol Avenue) from the Capitol Building. There is some
> metered parking around the building. The closest parking facility is
> one block south at the corner of Capitol Avenue and Allegan Street
> (enter the parking facility from Capitol Avenue).
> https://www.parkme.com/lot/93032/tower-parking-ramp-lansing-mi
>
> You will also want to have a picture I.D. handy for security in the Romney Building. Please let security know who you have a meeting with, they will call me and then send you up to the second floor.
>
> Please let me know if you have any questions.
>
> Thank you!
>
> Virginia Manolakoudis

> Executive Assistant for Richard Baird
> Executive Office of Governor Rick Snyder
> (517) 241-5621
> ManolakoudisV@michigan.gov<mailto:ManolakoudisV@michigan.gov>
>
>
>
>
>
>
>
> <#flintwatercrisis Secondary Prevention Recommendations 121415.pdf>

From: Holland, Meegan (GOV)
Sent: Tuesday, December 22, 2015 4:52 PM
To: Baird, Richard (GOV)
Subject: RE: Meeting with Dr. Mona Hanna-Attisha and Flint Water

Thanks for keeping us in the loop, Rich.

It's immensely helpful to Dave and me to know what lies ahead so we can craft our message accordingly.

Also, thanks for that lovely bottle of wine. I hope you and Linda have a wonderful holiday ... and I also hope I don't have to bug you during your time off, but I'm not going to guarantee it!

- Meegan

-----Original Message-----
From: Baird, Richard (GOV)
Sent: Tuesday, December 22, 2015 4:27 PM
To: Holland, Meegan (GOV) <HollandM2@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: FW: Meeting with Dr. Mona Hanna-Attisha and Flint Water

These are all the areas where long term vigilance needs to be happening.

-----Original Message-----
From: Mona Hanna-Attisha [mailto:MHanna1@hurleymc.com]
Sent: Tuesday, December 15, 2015 7:40 AM
To: Lyon, Nick (DHHS)
Cc: Baird, Richard (GOV); Laurence Reynolds; Matthew M. Davis; Chris Kolb; Ken Sikkema; Chris De Witt; Eric Rothstein; Hollins, Harvey (GOV)
Subject: RE: Meeting with Dr. Mona Hanna-Attisha and Flint Water

attached

-----Original Message-----
From: Lyon, Nick (DHHS) [mailto:LyonN2@michigan.gov]
Sent: Tuesday, December 15, 2015 6:26 AM
To: Mona Hanna-Attisha
Cc: Baird, Richard (GOV); Laurence Reynolds; Matthew M. Davis; Chris Kolb; Ken Sikkema; Chris De Witt; Eric Rothstein; Hollins, Harvey (GOV)
Subject: Re: Meeting with Dr. Mona Hanna-Attisha and Flint Water

Thank you for the presentation and your approach to this. When you can please share a version of the presentation I can pass in to Sue, Eden and the others in my Population Health area.

Nick

> On Dec 14, 2015, at 7:05 PM, Mona Hanna-Attisha <MHanna1@hurleymc.com> wrote:

>
>
> Mr. Baird and all the other guys,
>
> It was a pleasure meeting everyone and a privilege to present to you all. As I said, we have an incredible and unique opportunity to mitigate the impact of this population-wide exposure. If we act now, proactively, we can buffer our kids from the life-altering impacts of lead poisoning.
>
> Flint has many claims to fame (we put the world on wheels, we birthed Mr. Baird!, etc); and now, with your leadership, we can continue to build generations of strong, smart, and healthy children.
>
> If I can be of any further assistance, please don't hesitate to contact me. Email or cell [redacted]
>
> Thanks again, Mona
>
> Mona Hanna-Attisha MD MPH FAAP
> Program Director Pediatric Residency
> Hurley Children's Hospital at Hurley Medical Center Michigan State
> University College of Human Medicine Department of Pediatrics and
> Human Development Mhanna1@hurleymc.com<mailto:Mhanna1@hurleymc.com>
> _____
> From: Baird, Richard (GOV) [bairdr@michigan.gov]
> Sent: Thursday, December 10, 2015 2:27 PM
> Required: Baird, Richard (GOV); Laurence Reynolds; Matthew M. Davis;
> Chris Kolb; Ken Sikkema; Chris De Witt; 'Eric Rothstein'; Lyon, Nick
> (DHHS); Grijalva, Nancy (DHHS); Mona Hanna-Attisha
> Subject: Meeting with Dr. Mona Hanna-Attisha and Flint Water
> When: Monday, December 14, 2015 11:00 AM-12:00 PM.
> Where: Governor's Conference Room, 2nd Floor Romney Building, 111 S.
> Capitol Ave., Lansing, MI 48933
>
> Good Morning,
>
> This is to confirm the meeting with Rich Baird on Monday, December 14 at 11:00 a.m. in the Governor's Conference room, second floor Romney Building, 111 S. Capitol Ave. Lansing, MI 48933.
>
> We are located at the George W. Romney Building, 111 S. Capitol
> Avenue, Lansing. The Romney Building is located directly across the
> street (Capitol Avenue) from the Capitol Building. There is some
> metered parking around the building. The closest parking facility is
> one block south at the corner of Capitol Avenue and Allegan Street
> (enter the parking facility from Capitol Avenue).
> https://www.parkme.com/lot/93032/tower-parking-ramp-lansing-mi
>
> You will also want to have a picture I.D. handy for security in the Romney Building. Please let security know who you have a meeting with, they will call me and then send you up to the second floor.
>
> Please let me know if you have any questions.
>
> Thank you!
>
> Virginia Manolakoudis

> Executive Assistant for Richard Baird
> Executive Office of Governor Rick Snyder
> (517) 241-5621
> ManolakoudisV@michigan.gov<mailto:ManolakoudisV@michigan.gov>
>
>
>
>
>
>
>
> <#flintwatercrisis Secondary Prevention Recommendations 121415.pdf>

From: Holland, Meegan (GOV)
Sent: Tuesday, December 22, 2015 6:33 PM
To: 'snyder[redacted]Baird, Richard (GOV); 'calley[redacted]Agen, Jarrod (GOV); Hollins, Harvey (GOV); Clement, Elizabeth (GOV); Scott, Allison (GOV)
Subject: Briefing on Flint water blog post

Colleagues,

Here is a quick summary of a blog post that appears on flintwaterstudy.org, based on 159 pages of DHHS emails requested by Virginia Tech researcher Marc Edwards under the Freedom of Information Act.

The headline: "Michigan Health Department Hid Evidence of Health Harm Due to Lead Contaminated Water: Allowed False Public Assurances by MDEQ and Stonewalled Outside Researchers"

Major points:

- Lee Ann Walters contacted DHHS nurse Karen Lishinski to discuss her child's high lead level. The response: "He is barely lead poisoned. If CDC had not changed their lead poisoning standard from 10 down to 5, we would not be having this conversation … I am working with kids in their 40's and 50's. It is just a few IQ points…it is not the end of the world."
- DHHS reached out to DEQ after some red flags about lead levels; Stephen Busch responded with inaccurate information. Even so, DHHS proceeded with studies on lead levels and found spiked levels for Q3 2014 and 2015 (third quarters – the summer months - often have season spikes). July 2015 memos indicate they could see something was awry, but the story implies that DHHS sat on the results.
- In September 2015, Brad Wurfel said a study was done and he used it to discredit data from Virginia Tech showing high lead levels. The blog post says Wurfel misrepresented the DHHS results and that DHHS "stood by and said nothing while MDEQ made false claims about what the blood lead data showed."
- Virginia Tech's Marc Edwards requested water data on 9/2/15. He waited for several weeks for the information, and the article talks about how the request caused a flurry of emails at DHHS, particularly between Robert Scott and Nancy Peeler (who work in the childhood lead prevention program). The story says the emails show the department was acting unethically because they appeared to be stonewalling Edwards and later Dr. Mona Hanna-Attisha.

DHHS' response:
"The Michigan Department of Health and Human Services has been, and continues to be, committed to full disclosure of information regarding the city of Flint and blood lead levels. To suggest otherwise is not consistent with how we have responded.
"When initially looking at the citywide and county elevated blood lead level numbers, the increase appeared to be consistent with the routine seasonal fluctuation seen in the summer months. It wasn't until the Hurley report came out that our epidemiologists took a more in-depth look at the data by zip code, controlling for seasonal variation, and confirmed an increase outside of normal trends. As a result of this process, we have determined that the way we analyze data collected needs to be thoroughly reviewed. Our after action report will help determine how we conduct this process in the future.
"Our department is focused on ensuring that appropriate case management and follow up is occurring in Flint. Summary reports outlining blood lead level testing are posted online on a bi-weekly basis, and we are working closely with local partners to fulfill data requests as we receive them.

"Regarding the FOIA, Mr. Edwards received all of the requested documents, with personal information redacted, on Friday, December 18."

Media response: We have received requests from The Flint Journal, The Detroit Free Press, Michigan Radio, Huffington Post, Rachel Maddow and Flint TV.

If there are any questions, please feel free to ask away.

- Meegan

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
Mobile: [redacted]
Twitter: @meholland

From: Holland, Meegan (GOV)
Sent: Thursday, December 24, 2015 8:08 AM
To: Agen, Jarrod (GOV); Baird, Richard (GOV); Hollins, Harvey (GOV); Walsh, John (GOV); 'calley[redacted]; 'snyderr[redacted]Clement, Elizabeth (GOV); Scott, Allison (GOV)
Subject: BRIEFING: Auditor General answers on Flint water situation
Attachments: Auditor General Letter - City of Flint Drinking Water (002).pdf

Colleagues:

Here is a summary of answers from the Office of the Auditor General in response to questions mostly posed by Sen. Jim Ananich's office (the auditor added a few questions in the 11-page report). The questions came as the OAG conducts an audit of the Office of Drinking Water and Municipal Assistance's handling of the Flint water crisis.

Conclusions:

While the City Council voted in March 2013 to move to the KWA pipeline, it didn't designate the Flint River as an interim water source. But the DEQ had approved the river as a backup source for emergency purposes in 2006. The treated water met safety standards in quarterly tests by the Flint WTP, but Flint had never tested its effect on the distribution system.

In an email review of key DEQ managers to determine if there was an effort to conceal information, only one email exchange raised red flags. The EPA had asked DEQ in February 2015 if Flint had a corrosion control program; the DEQ responded the city had an optimized program in place. But in April the EPA asked again, and the DEQ said that the Flint Water Treatment Plant (WTP) was not doing corrosion control. DEQ later explained that its first response referred to its program to monitor a new water source (in this case, the Flint river) for lead/copper for two consecutive six-month periods to determine optimal corrosion treatment. The report says there's no reason to believe that DEQ willfully misrepresented information to the EPA. It also concludes that ODWMA employees appeared to have notified management properly about the unfolding Flint water situation.

DEQ did not consult with the EPA on how best to apply the Lead and Copper Rule (LCR) monitoring practices after the switch to Flint water, but from past experience, DEQ believed it was doing so correctly by doing two rounds of six-month monitoring on the new water source before determining optimal corrosion control. The EPA disagreed with DEQ's interpretation of the LCR, but later stated that the LCR was open to interpretation. It then clarified the rule; the upshot: corrosion controls already in place when Flint was on Detroit water should have been maintained after the switch.

DEQ should have notified the Flint WTP to start corrosion controls once the first round of six-month sampling results arrived in late March 2015 and showed the water exceeded acceptable lead levels.

DEQ doesn't oversee the Flint WTP so it doesn't have any accountability measures to ensure the WTP is collecting water samples from tier 1 homes, i.e., residences with lead service lines, soldering or plumbing. Instead, DEQ relies on Flint's certification of sample sites. The auditor suggests DEQ should consider an independent verification of the sampling pool or Flint's certifications. In November 2015, Flint admitted that it had no way to ensure the sites were all tier 1. Water samples came from 175 randomly distributed testing bottles. DEQ has asked Flint to verify its prior samples by this Wednesday (12/30).

There's been controversy that DEQ dropped two sampling sites with high lead levels from its second six-month review. It was appropriate for DEQ to do so because those sites did not meet federal criteria. It was also appropriate for DEQ to require flushing taps the night before sampling to ensure faucets didn't contain overly stagnant water.

Charts show that most water samples were taken in the sixth month of the six-month testing period. The report said it's tough to determine if the lateness of the sampling affects the accuracy.

The report ends with an excellent timeline. I have attached the report in case you want to review the timeline on page 11.

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
Mobile: [redacted]
Twitter: @meholland

OAG
Office of the Auditor General
Doug A. Ringler, CPA, CIA
Auditor General
201 N. Washington Square, Sixth Floor • Lansing, Michigan 48913 • Phone: (517) 334-8050 • www.audgen.michigan.gov

DRAFT

December 23, 2015

The Honorable Jim Ananich
Senate Minority Leader
State Capitol, Room S-105
Lansing, Michigan

Dear Senator Ananich:

Enclosed are answers to the questions you posed in your October 20, 2015 letter to our office regarding the audit we are conducting of the Office of Drinking Water and Municipal Assistance (ODWMA), Department of Environmental Quality (DEQ), specific to lead contamination in the City of Flint's drinking water. Also enclosed are additional questions we developed that are relevant to these issues, along with five exhibits:

- A map showing Flint water samples by zip code.
- A map showing lead counts of 5 parts per billion or higher.
- Two charts showing the number of samples by time period and zip code.
- A time line of the Flint water review.

We appreciate the opportunity to assist you in answering questions regarding this topic. If you have further questions or a request for other services, please do not hesitate to contact our office.

Sincerely,

Doug Ringler
Auditor General

Enclosures

Q1: How does ODWMA ensure the data it receives is accurate?

A: With regard to the United States Environmental Protection Agency (EPA) Lead and Copper Rule (LCR) monitoring requirements, DEQ relies on the following key controls to ensure the accuracy of test results:

- State-owned laboratories test water samples.
- State-owned laboratories send test results directly to DEQ.
- The City of Flint Water Treatment Plant (Flint WTP) certifies whether sample sites are classified as tier 1*.

The current Flint WTP LCR sampling process includes:

1. DEQ informs the Flint WTP of the required water lead and copper sample size.
2. The Flint WTP determines the pool of tier 1 sites for sampling.
3. The Flint WTP selects the sample.
4. The Flint WTP sends out sample kits and instructions to residents for collecting water samples.
5. Residents leave samples and signed sampling forms outside their front doors.
6. The Flint WTP employee picks up samples and forms from residents.
7. The Flint WTP employee reviews sample forms for completeness.
8. The Flint WTP employee sends samples to the State-owned laboratories.
9. State-owned laboratories test samples and provide results directly to DEQ.
10. DEQ receives water lead and copper sample results, which include the following information: date collected, date received, address where collected, type of residence (e.g., single family or apartment), and sample point (e.g., kitchen sink or bathroom sink).
11. DEQ tracks, and follows up if necessary, the number of samples collected by the Flint WTP to help ensure that the required minimum number of samples are collected by the monitoring period deadline.

DRAFT

* Single-family or multiple-family residence with lead service line, lead solder copper piping constructed after 1982, or lead plumbing.

12. The Flint WTP submits lead and copper report to DEQ that certifies whether sample sites meet tier 1 criteria.

13. DEQ prepares the LCR 90th percentile calculation report.

During our review, we noted two potential improvements for the Flint WTP sampling process (see Question 5 of the additional questions answered by the OAG regarding tier 1 sample validity):

- DEQ could verify that the sampling pool was limited to only tier 1 sample sites to ensure that the Flint WTP is in compliance with the LCR (Title 40, Part 141, section 86(a)(3) of the *Code of Federal Regulations* [*CFR*]).

- DEQ could independently verify the validity of sample site certifications.

Q2: What accountability measures are in place for ODWMA staff who fail to follow data verification protocols?

A: DEQ does not provide any direct oversight over the Flint WTP and, therefore, does not have any accountability measures over the Flint WTP's LCR data verification protocols. DEQ's data verification protocol for lead and copper water sampling is limited to verification that the WTP certifies samples submitted to the State-owned laboratories for analysis (see steps 7 and 12 in the Flint WTP LCR sampling process noted in Question 1 above). We did not identify any instances in which ODWMA staff failed to verify that submitted samples were certified by the Flint WTP.

Q3: What accountability measures are in place for ODWMA staff who lie or misrepresent information to the EPA?

A: As with all classified employees, ODWMA staff must adhere to the rules and regulations established by the Michigan Civil Service Commission. If any ODWMA staff were determined to misrepresent information to the EPA, they would be subject to Civil Service Rule 2-6, Discipline, which allows an appointing authority to discipline an employee for just cause up to and including dismissal. We are not aware of any DEQ-established measures that are in addition to the Civil Service Rules.

We gained access to the e-mail accounts of key DEQ management (DEQ Director, Deputy Director, ODWMA Chief, and other key ODWMA staff) extending back to January 1, 2013. We did so to identify the key decision points and conversations that occurred leading up to and through the situation in Flint. Our review was also intended to determine whether State, Flint, or other officials attempted to conceal key test results or other information.

We noted one e-mail exchange between DEQ and the EPA that appears to be a significant contributor to the concern that DEQ misrepresented information to the EPA. The EPA requested clarification on February 26, 2015 regarding the type of optimized corrosion control **treatment** the Flint WTP was using. DEQ responded on February 27, 2015 that the city had an optimized corrosion control **program** in place, but DEQ did not provide any program details. DEQ informed us that the Flint WTP corrosion control **program** included performing

lead and copper monitoring for two consecutive six-month periods to determine whether corrosion control **treatment** would be necessary in the future. However, it appears the EPA interpreted corrosion control **program** to mean that corrosion control **treatment** was being performed.

On April 23, 2015, the EPA again inquired as to what the Flint WTP was doing for corrosion control **treatment**. DEQ responded on April 24, 2015 that the Flint WTP was not practicing corrosion control **treatment**.

Based on our review of this and other e-mails, we have no specific reason to believe that DEQ willfully misrepresented the information to the EPA.

Q4: What policies do DEQ and ODWMA have in place to escalate major infractions up the chain of command?

A: We did not note any instances of major infractions (i.e., intentional disregard of policies, laws, regulations or specific directions) committed by DEQ staff during the course of our review. DEQ does not have a formal policy or procedure in place to escalate major infractions performed by ODWMA employees; however, our review of DEQ correspondence confirmed the escalation of key issues up the chain of command related to the Flint situation. DEQ stated that its informal policy is for staff to notify the proper level of management of infractions to determine necessary action.

DRAFT

Application of the LCR

Q1: How did the Flint WTP become the primary water supplier for the City of Flint?

A: Upon notification of the City of Flint's plans to switch to the Karegnondi Water Authority (KWA) in April 2013, the Detroit Water and Sewerage Department (DWSD) submitted a letter to the City of Flint stating that it would terminate its agreement to provide water services on April 17, 2014.

According to DEQ management, the Flint WTP attempted to negotiate with the DWSD to maintain it as the City of Flint water supplier; however, after negotiations were unsuccessful, the City of Flint notified DEQ through a permit request of its intent to operate the Flint WTP full time using the Flint River. Although the Flint City Council voted in March 2013 in support of moving to the KWA pipeline, the vote was silent on the use of the Flint River as a temporary drinking water source.

The Flint River was approved by DEQ in 2006 as a backup source of water for emergency purposes prior to the switch from the DWSD WTP to the Flint WTP. On a quarterly basis, the Flint WTP tested the treated Flint River water at the Flint WTP, which met water quality standards; however, the Flint WTP did not test the water's effect on the distribution system at consumer tap locations.

Q2. Did DEQ consult with the EPA prior to determining how to apply the LCR?

A: DEQ did not consult with the EPA on how to apply the LCR prior to implementing two consecutive six-month monitoring periods of the Flint WTP beginning July 1, 2014. Based on past experiences applying the LCR monitoring requirements, DEQ believed that it had appropriately applied the LCR requirements of a large water system.

Q3: When Flint switched to the Flint River water source, should corrosion control treatment have been maintained?

A: We believe that corrosion control treatment should have been maintained.

According to the LCR, a water system can achieve optimized corrosion control if it submits results of tap water monitoring for two consecutive six-month monitoring periods with acceptable lead levels. However, a water system that has optimized corrosion control, and which has treatment in place, should continue to operate and maintain optimal corrosion control treatment.

DEQ staff explained that they did not treat the switch to Flint River water as a new system, but as a new source. DEQ further stated that because the Flint River was a new water source and there was a change in chemicals needed to treat the new source, a corrosion control study was needed to determine the impact on the water distribution system. Therefore, it was DEQ's interpretation that two rounds of six-month monitoring were still needed to evaluate the water quality and determine optimal corrosion control treatment.

DRAFT

The Flint water system had optimal corrosion control treatment when the DWSD WTP was the water supplier. Based on our review of notes from a July 21, 2015 EPA and DEQ conference call on DEQ's implementation of the LCR regarding whether the Flint WTP should have continued to maintain corrosion control treatment, it appeared that the EPA did not agree with DEQ's interpretation of the LCR. Region 5 EPA staff explained that they would talk to the EPA headquarters about the interpretation of regulations and believes that systems that have been deemed optimized need to "maintain" corrosion control. The Region agreed to provide supporting regulatory citations for the language about maintaining corrosion control.

On November 3, 2015, the EPA issued a memorandum stating that the LCR had differing possible interpretations; however, the EPA concluded that it is important for large water systems to take the steps necessary to ensure that appropriate corrosion control treatment is maintained at all times, thus ensuring that public health is protected. Based on this clarification, it appears that corrosion control treatment should have been maintained.

Q4: Should DEQ have required the Flint WTP to start pursuing optimized corrosion control treatment after the first round of six-month sampling results were above the lead action level of 5 parts per billion (ppb)?

A: Yes. According to DEQ's application of the LCR, within six months after the end of the monitoring period in which the water sample results exceeded the acceptable lead level, DEQ should have required the Flint WTP to start pursuing optimized corrosion control treatment.

The LCR states that the lead action level is exceeded if the lead level, as determined by the 90th percentile calculation, is greater than 15 ppb. If the lead action level is exceeded, water systems are required to take additional actions including educating the public about lead in drinking water as well as commencing lead service line replacement if the water system has already installed corrosion control and/or source water treatment. However, for water systems that have not yet implemented corrosion control treatment, they can be deemed to have optimized corrosion control without installing treatment if they can demonstrate lead levels below 5 ppb for two consecutive six-month periods.

The first round of six-month sampling results was received in late March 2015. Because the results were 1 ppb over the lead action level of 5 ppb, DEQ would not be able to achieve two consecutive six-month periods below 5 ppb. Therefore, DEQ should have notified the Flint WTP to start pursuing optimized corrosion control treatment. However, DEQ waited until the second round of sampling was completed (June 30, 2015) to assess whether water sample results improved.

Water Samples

Q5: Did DEQ verify that only tier 1 sample sites were selected by the Flint WTP in the two rounds of six-month samples?

A: DEQ did not verify that only tier 1 sample sites were selected. DEQ relies on the Flint WTP's certification of sample sites and does not perform any independent verification of those certifications.

DRAFT

In a November 19, 2015 *Flint Journal* article, the Flint WTP indicated that it did not have the ability to ensure that all sites were tier 1. In fact, water samples came from the random distribution of 175 testing bottles without regard for whether the homes were at risk for high lead levels. DEQ issued a formal memorandum on November 9, 2015 requesting that the Flint WTP verify the classification of all prior sample items. The results are due back from the Flint WTP on December 30, 2015.

Q6: DEQ dropped two water sampling sites from its second six-month sample (January 1, 2015 through June 30, 2015). Was this appropriate?

A: Yes, it was appropriate for DEQ to drop these two water sampling sites. Federal regulation 40 *CFR* 141.86(a) states:

> ". . . each water system shall complete a materials evaluation of its distribution system in order to identify a pool of targeted sampling sites that meets the requirements of this section . . . All sites from which first draw samples are collected shall be selected from this pool . . . Sampling sites may not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants."

This regulation also requires that a water system's targeted sampling pool consist of only tier 1 sampling sites if an adequate number is available to meet monitoring requirements.

According to federal regulation 40 *CFR* 141.86(f), the State may invalidate a water sample if it determines that the sample was taken from a site that did not meet the site selection criteria. A sample invalidated per this regulation does not count toward determining lead or copper 90th percentile levels or toward meeting the minimum monitoring requirements.

DEQ dropped one water sample site from its 90th percentile calculations because the site was from a business that does not meet the tier 1 requirements of being a single-family or multiple-family residence. The second sample site was dropped because the home had a point-of-entry treatment device to filter contaminants. Based on the criteria specified above, it appears that DEQ's rationale for dropping the samples from these two sites appropriately met the requirements for invalidating samples per federal regulation 40 *CFR* 141.86.

Q7: Was flushing of the taps the night before drawing a sample an appropriate sample methodology?

A: Yes. The LCR requires that samples be a first draw of water after six hours of stagnation. The LCR does not indicate whether or not the water line should be flushed prior to collecting the sample. In the sample instructions, DEQ required preflushing to ensure that sampled faucets were not stagnant for an excessive period of time beyond the targeted six hours (e.g., rarely used faucets or when a homeowner has been gone for an extended period of time.)

The LCR requires six hours of stagnation; however, it does not preclude DEQ from instructing residents to flush prior to stagnation.

Flint WTP 2014 and 2015 Sample Locations (Exhibit #1)

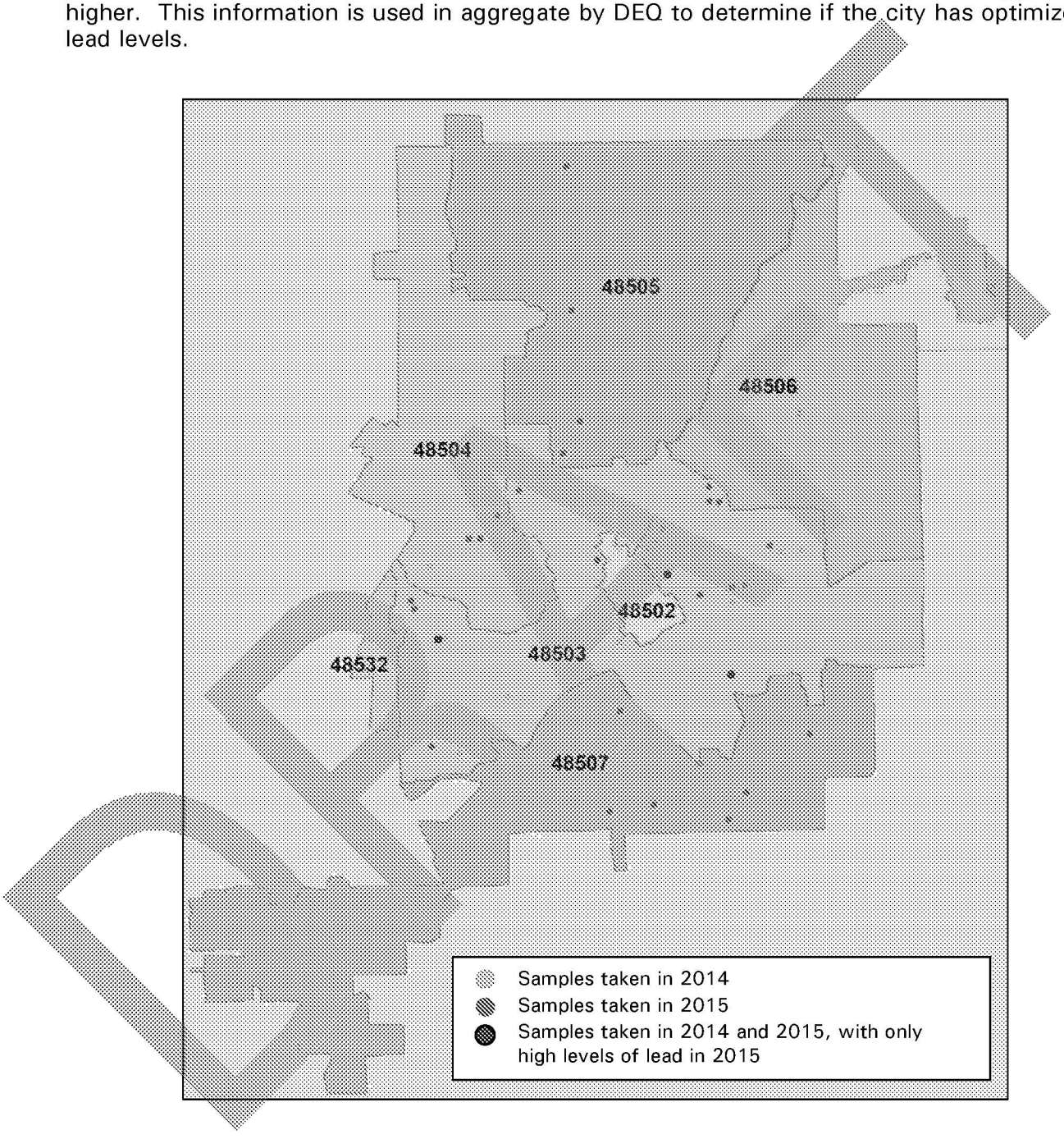
In calendar year 1992, the Flint WTP established a tier 1 sample site pool for LCR monitoring. With the change to the Flint River water, the Flint WTP needed to increase the pool of sample locations because of additional sampling requirements. The following exhibit documents the 2014 and 2015 sample locations for LCR monitoring. Based on the data obtained during our review, we could not determine how the locations were selected or whether they were properly classified as tier 1 sample sites.

As noted in Question 5 of the additional questions answered by the OAG, DEQ has requested the Flint WTP to verify the tier 1 classification of all prior sample items.

Source: The OAG prepared this map using data obtained from DEQ and ©OpenStreetMap contributors (opendatacommons.org). The sample locations are approximate.

Flint WTP 2014 and 2015 Sample Locations With Lead Counts of 5 Parts Per Billion or Higher (Exhibit #2)

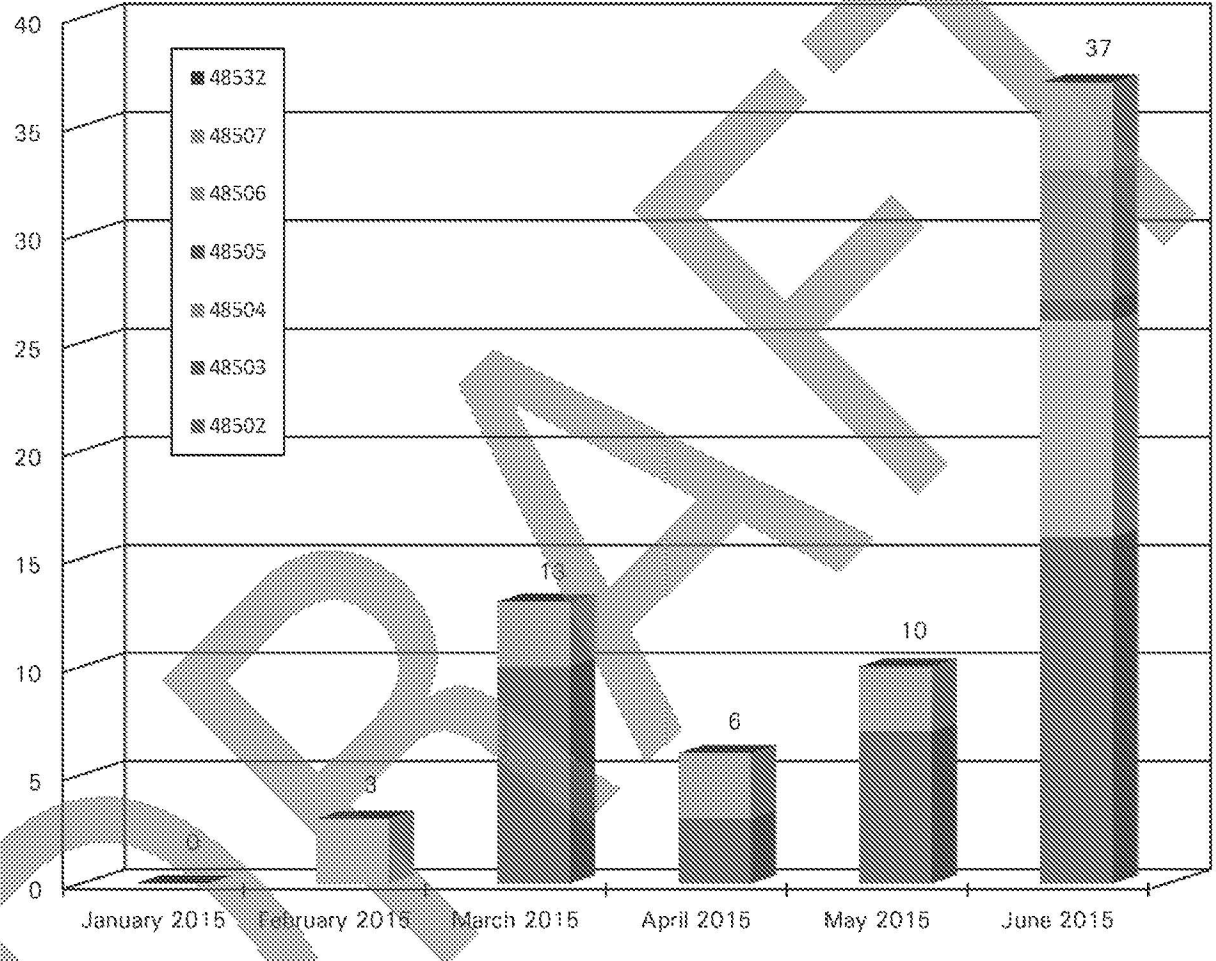
This exhibit documents the 2014 and 2015 sample locations with lead counts of 5 ppb or higher. This information is used in aggregate by DEQ to determine if the city has optimized lead levels.



Source: The OAG prepared this map using data obtained from DEQ and ©OpenStreetMap contributors (opendatacommons.org). The sample locations are approximate.

Flint WTP 2015 Number of Samples by Time Period and Zip Code (Exhibit #3)

This chart expands on Exhibit #1 to show a summary by zip code and time of selection within the sampling period. Based on the data obtained during our review, we could not determine if the lateness of selection within the monitoring period affected the appropriateness of the sample items.

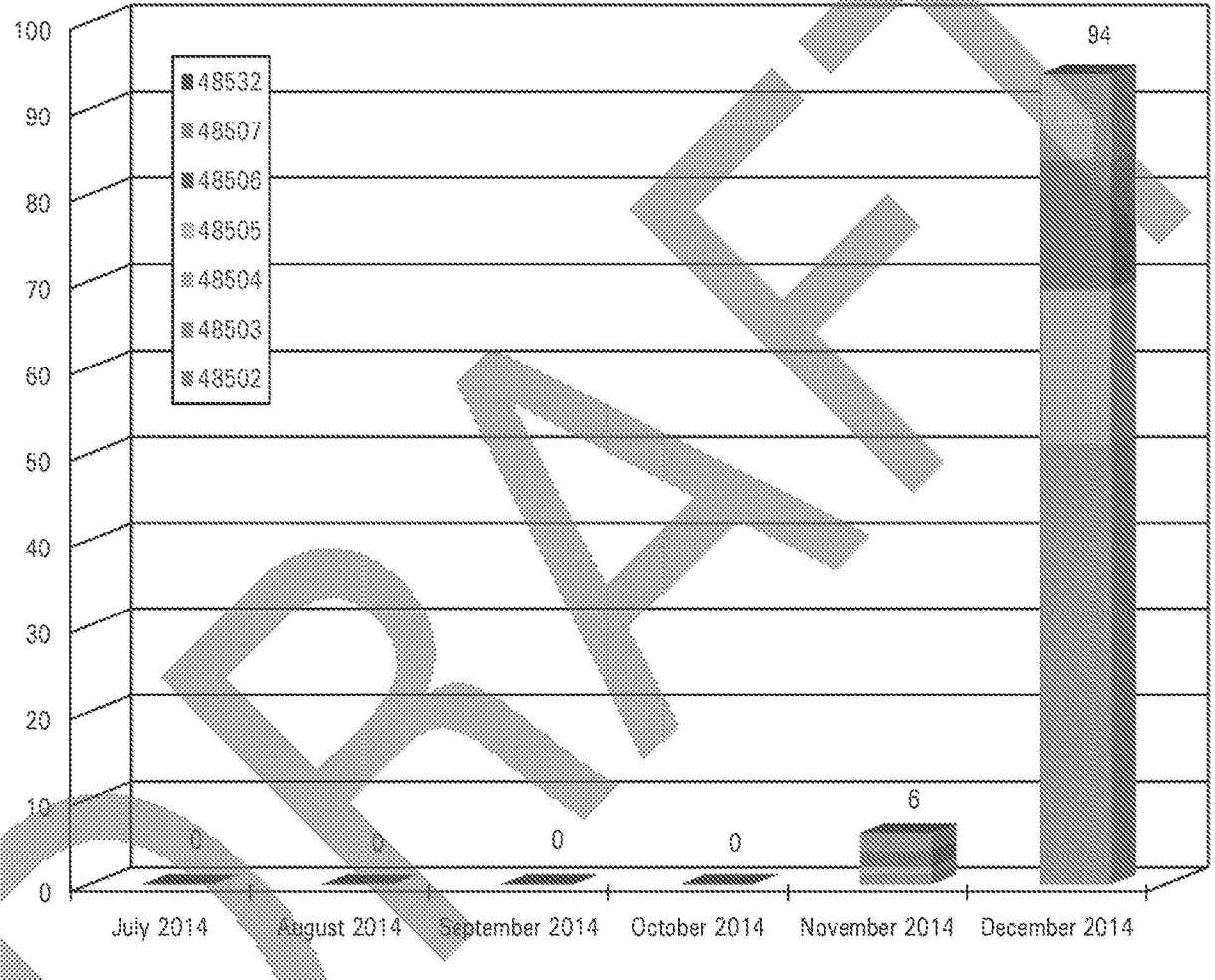


Source: The OAG prepared this chart using data obtained from DEQ.

DRAFT

Flint WTP 2014 Number of Samples by Time Period and Zip Code (Exhibit #4)

This chart expands on Exhibit #1 to show a summary by zip code and time of selection within the sampling period. Based on the data obtained during our review, we could not determine if the lateness of selection within the monitoring period affected the appropriateness of the sample items.



DRAFT

Source: The OAG prepared this chart using data obtained from DEQ.

March 2013
Flint City Council voted 7-1 to join Karegnondi Water Authority (KWA).

April 16, 2013
City of Flint emergency manager Ed Kurtz signs agreement to switch from Detroit Water and Sewerage Department (DWSD) water source to KWA.

April 17, 2013
DWSD said it will stop selling water to the City of Flint in April 2014.

July 2014
DEQ begins the first six-month Flint lead/copper monitoring period.

Mid-March 2014
City of Flint decides to use the Flint River as a water source.

April 25, 2014
City of Flint switches to Flint River water.

January 1, 2015
DEQ begins the second six-month Flint lead/copper monitoring period.

January 12, 2015
DWSD offers the City of Flint a waiver of the $4 million reconnection fee to switch back to Detroit water.

January 29, 2015
City of Flint emergency manager Jerry Ambrose declines DWSD water source reconnection.

February 3, 2015
Governor Snyder awards the City of Flint $2 million to find leaks and replace wastewater incinerator.

February 26, 2015
The EPA discusses a resident's water sample testing results with DEQ (high levels of lead found in water).

February 27, 2015
DEQ responded to the EPA saying that the Flint WTP has an optimized corrosion control program.

March 30, 2015
DEQ notifies the Flint WTP of the first six-month lead/copper monitoring period.

April 24, 2015
DEQ indicates no corrosion control (orthophosphate) chemical in place (treatment).

May 28, 2015
Sample results from the residence noted with high levels on February 26, 2015 show lead levels look good after a new copper service line installation.

July 21, 2015
The EPA and DEQ hold conference call on DEQ's implementation of the Lead and Copper Rule (LCR) and Flint issues.

August 17, 2015
DEQ notifies the Flint WTP of the second six-month lead/copper monitoring results.

August 23, 2015
Virginia Tech researcher notifies DEQ that he will begin a study of the City of Flint water quality.

September 2, 2015
Virginia Tech researcher claims that the corrosiveness of the Flint water is causing lead to leach into residents' water.

September 24, 2015
Hurley Medical Center study issued showing high blood lead levels in City of Flint children.

October 1, 2015
- Michigan Department of Health and Human Services confirms results of Hurley Medical Center study.
- City of Flint urges residents to not drink water.

October 8, 2015
City of Flint develops plan to reconnect to DWSD.

October 16, 2015
City of Flint reconnects to DWSD.

October 19, 2015
DEQ Director Dan Wyant states: ". . . staff made a mistake while working with the city of Flint. Simply stated, staff employed a federal [corrosion control] protocol they believed was appropriate, and it was not."

November 3, 2015
The EPA indicates differing possible interpretations of the LCR with respect to how the LCR's optimal corrosion control treatment procedures apply to this situation (new water source/new water treatment).

2013 | 2014 | 2015

DRAFT

Source: The OAG prepared this time line using data (e-mails, meeting notes, and letters) obtained from DEQ, newspaper and press release articles, the Flintwaterstudy.org, and the Hurley Medical Center survey results.

From: Holland, Meegan (GOV)
Sent: Thursday, December 24, 2015 8:41 AM
To: Hollins, Harvey (GOV); Posthumus, Dick (GOV); Redford, James (GOV); Walsh, John (GOV); Clement, Elizabeth (GOV); 'calley[redacted]
Cc: Agen, Jarrod (GOV); Baird, Richard (GOV)
Subject: Please provide feedback: Governor's statement on Flint water crisis

Colleagues:

Many of us have reached the conclusion that our messaging on the Flint water crisis has room for improvement. We haven't conveyed to citizens the depth of our concern over the situation. I've crafted a statement to be made by the Governor, and would like you to review it.

This statement is meant to manage expectations on the timing of concrete conclusions (the task force report may not come out for another month at least) and to signal that action may come sooner than that (we plan to reach out to Mayor Weaver, for example, and perhaps hold a press conference with her in January announcing some next steps).

Here is the statement:

"I've been briefed on the recent meeting of the task force studying the Flint water situation and I've read the report from the Office of the Auditor General on the processes used by DEQ to monitor Flint water.

"No matter what the testing requirements were, they were not enough to prevent this crisis. I want Michigan to be the state that is known for the safest water in the nation.
"I'd like to thank the task force for keeping me apprised of their continuing investigation. As they uncover more facts, it's clear to me we can do better. The report may take another month or so, but if we need to make changes more swiftly, I plan to take immediate action.

"The bottom line is we'll take responsibility for our part in Flint's water crisis. I'm committed to partnering with all of the stakeholders who are as concerned about public health as I am. I vow to make sure that Flint citizens will have safe drinking water. And I'm so very sorry that this happened.

"But I know an apology isn't enough. We've already allocated $10 million to test the water, distribute water filters, and help in other ways. On Thursday, I called Flint Mayor Karen Weaver, and we're going to sit down in the next week to discuss other ways the state can offer assistance.

"What happened in Flint is inexcusable. I want to assure residents there that we will work hard to make things right."

Thank you,
Meegan

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
Mobile:[redacted]
Twitter: @meholland

From: Holland, Meegan (GOV)
Sent: Thursday, December 24, 2015 10:32 AM
To: 'Baird, Richard (GOV)'
Cc: Hollins, Harvey (GOV); Posthumus, Dick (GOV); Redford, James (GOV); Walsh, John (GOV); Clement, Elizabeth (GOV); Calley, Brian (GOV); Agen, Jarrod (GOV)
Subject: RE: Please provide feedback: Governor's statement on Flint water crisis

Here is a revised statement incorporating Rich's suggested changes:

"I've been briefed on the recent meeting of the task force studying the Flint water situation and I've read the report from the Office of the Auditor General on the processes used by DEQ to monitor Flint water.

""The bi-partisan task force has worked tirelessly to interview Flint, Genesee County, state and federal officials to complete its independent analysis. They are reviewing hundreds of documents at all levels of government and from the public health science community.

"I'd like to thank the task force for keeping me apprised of their continuing investigation. As they uncover more facts, it's clear to me we can do better. Their report may take another month or so, but if we need to make changes more swiftly, I plan to take immediate action.

"No matter what the testing requirements were, they were not enough to prevent this crisis. I want Michigan to be the state that is known for the safest water in the nation.

""When it comes to matters of health and quality of life, there is simply no room for error in testing for lead and other toxins. I understand there can be disagreements within the scientific community. That is why I have told my directors at MDEQ and DHHS to invite every external scientist who has worked on the Flint water issue to the state laboratory facilities to work as partners with us. Together, we should be able to affirm that we're using the very best testing protocols to ensure Flint residents have safe drinking water and that we're doing proper monitoring and remediation of blood levels and other health impacts over the long term.

"I want the Flint community and all citizens of Michigan to know how very sorry I am that this has happened.

"But I know an apology isn't enough. We've already allocated $10 million to test the water, distribute water filters, and help in other ways. On Thursday, I called Flint Mayor Karen Weaver, and we're going to sit down in the next week to discuss other ways the state can offer assistance.

"What happened in Flint is inexcusable. I want to assure residents there that we will work hard to make things right."

From: Baird, Richard (GOV)
Sent: Thursday, December 24, 2015 9:53 AM
To: Holland, Meegan (GOV) <HollandM2@michigan.gov>
Cc: Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Redford, James (GOV) <RedfordJ@michigan.gov>; Walsh, John (GOV) <WalshJ@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Calley, Brian (GOV) [redacted] Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: Re: Please provide feedback: Governor's statement on Flint water crisis

This is the best narrative I have seen that actually describes how we feel about the situation and our resolve to make things right. A few thoughts:

We might think about a "lead in" to your second para in the statement. Something like "The bi-partisan task force has worked tirelessly to interview Flint, Genesee County, State and Federal officials and complete an independent fact based analysis. They have reviewed hundreds of documents at all levels of government and from the public health science community and continue to do so.

Para 3 might unintentionally suggest that there are public health stakeholders who are not as serious as the governor. This may be an overreach, but may I suggest

"When it comes to matters of health and quality of life, there is simply no room for error in testing for lead and other toxins. I understand there can be disagreements within the scientific community. That is why I have directed my Directors of MDEQ and DHHS to invite every external scientist who has worked on the Flint water issue to the state laboratory facilities to work as partners with us. Together, we should be able to affirm that every testing protocol and conclusion validates that Flint citizens will have safe drinking water, and that we are doing everything possible to ensure proper monitoring and remediation of blood levels and physical or neurological impacts over the long term. And I want the Flint community and all citizens of Michigan to know how very sorry I am that this has happened."

Nick and Dan might not like the "invite" but I spoken with them both and they of course will support whatever the Boss decides.

Thanks,

Rich

Sent from my iPad

On Dec 24, 2015, at 7:41 AM, Holland, Meegan (GOV) <HollandM2@michigan.gov> wrote:

> Colleagues:
>
> Many of us have reached the conclusion that our messaging on the Flint water crisis has room for improvement. We haven't conveyed to citizens the depth of our concern over the situation. I've crafted a statement to be made by the Governor, and would like you to review it.
>
> This statement is meant to manage expectations on the timing of concrete conclusions (the task force report may not come out for another month at least) and to signal that action may come sooner than that (we plan to reach out to Mayor Weaver, for example, and perhaps hold a press conference with her in January announcing some next steps).
>
> Here is the statement:
>
> "I've been briefed on the recent meeting of the task force studying the Flint water situation and I've read the report from the Office of the Auditor General on the processes used by DEQ to monitor Flint water.
>
> "No matter what the testing requirements were, they were not enough to prevent this crisis. I want Michigan to be the state that is known for the safest water in the nation.
> "I'd like to thank the task force for keeping me apprised of their continuing investigation. As they uncover more facts, it's clear to me we can do better. The report may take another month or so, but if we need to make changes more swiftly, I plan to take immediate action.

"The bottom line is we'll take responsibility for our part in Flint's water crisis. I'm committed to partnering with all of the stakeholders who are as concerned about public health as I am. I vow to make sure that Flint citizens will have safe drinking water. And I'm so very sorry that this happened.

"But I know an apology isn't enough. We've already allocated $10 million to test the water, distribute water filters, and help in other ways. On Thursday, I called Flint Mayor Karen Weaver, and we're going to sit down in the next week to discuss other ways the state can offer assistance.

"What happened in Flint is inexcusable. I want to assure residents there that we will work hard to make things right."

Thank you,
Meegan

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
Mobile: [redacted]
Twitter: @meholland

From: Holland, Meegan (GOV)
Sent: Thursday, December 24, 2015 10:48 AM
To: 'Baird, Richard (GOV)'
Subject: RE: Today's Briefing
Attachments: DRAFT Flint water communications plan.docx

It occurs to me - should he also receive the communications plan we've been working on? I've sent you an updated one (with the revised statement).

-----Original Message-----
From: Baird, Richard (GOV)
Sent: Thursday, December 24, 2015 10:24 AM
To: Snyder, Rick (GOV) [redacted]; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Holland, Meegan (GOV) <HollandM2@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: Today's Briefing

Sorry for the late submission. Been trying to work this issue across various stakeholder groups and balance holiday commitments. Our Agenda (with Harvey adding under "Other":

1. Review HH Role and Responsibility as confirmed with FAATF (attachment (with some revision since meeting)

2. Other AATF Issues

a) schedule a conference call with Governor outlining current status

b) follow up with a letter discussing DEQ and leadership culture findings

c) Imminent Danger Declaration request

d) Concerns with Leadership appointments about to be made and DHHS recent responses/findings

e) Shared confidential plan relative to January 4 personnel actions

3. Discuss communications strategy as envisioned by MH, JA and RB last night (Meegan will be on call--Maybe Jarrod too busy not sure about yet)

4. Other (Harvey Hollins will deal with anything I missed)

DRAFT: FLINT WATER PLAN

Thursday, Dec. 24: Gov. calls Karen Weaver to set up a meeting

Talking points:

"I've read the draft of a report from the state's Office of the Auditor General and I've been briefed on the task force's progress in its ongoing investigation.

"I want to work together with you to get this problem solved. As partners, we can get resources in place more quickly.

"I want to assure you this isn't a political move on my part – I'm a problem solver and I intend to be your partner in addressing this to make it right. I'm truly sorry that all this has happened.

"I have some ideas on how to get more resources for blood lead level testing and remediation – financial as well as state personnel, and I'd like to discuss those with you.

"It sounds like you have a block of time available on the morning of Jan. 7. Would you be able to come to Lansing so we could talk between 9-10 a.m.? If so, I'll make sure Beth Emmitt, my scheduler, confirms with Maxine Murray."

Saturday, Dec. 26, or Monday, Dec. 28: Getting organized

We need to get the ball rolling on creating a healthy water communications team – potentially Mel Brown of TED and Ron Leix of MSP's Emergency Management and Homeland Security Division. Both are genuine and empathetic, and can convey information in a reassuring way.

This duo would work with DHHS' and DEQ's respective communications teams, but also free up those teams to work on other issues not related to Flint water. The healthy water team would be the point people for anything concerning Flint water and lead issues, and will have the authority to assist Harvey Hollins, cut red tape for researchers who want access to DHHS and DEQ records, respond to media requests, edit and/or write press releases in conjunction with the Governor's communications team and more.

Rich Baird or another appropriate person needs to discuss with Steve Arwood and Col. Etue about "borrowing" Mel and Ron. We would like to introduce these two at the January press conference with the Governor and Mayor Weaver, saying, "These are the folks who will answer questions and provide information to media and stakeholders about the Flint water crisis."

Monday, Dec. 28, or Tuesday, Dec. 29: Asking researchers for help

Nick Lyon reaches out to Virginia Tech researcher Marc Edwards and Hurley Hospital's Dr. Mona Hanna-Attisha to help state lead and water experts who have worked on Flint's issues. The purpose is to share information, compare results and track how those results were reached to ensure best practices and accurate reporting.

We'd ask this of Edwards and Hanna-Attisha:

- Your research has been eye opening and we're hoping you'll be willing to join an effort to ensure Flint's water is safe.

- We'd like you to sit down with state epidemiologists and other researchers so you can discuss lead levels and other issues related to the Flint water crisis. There have been variances and we want to be as accurate as possible.
- We want you to have as much access to our data as is possible under HIPPA laws so we can determine the extent of the problem.
- We want the team to brainstorm ways to get Flint's water back to safe levels for drinking, and to help families learn how they can mitigate any effects from lead.
- Once the water is safe, we want your help in showing the people of Flint that their water is drinkable.
- If you're willing to help, we'd like to announce this at a press conference in January and would love to have you both attend, if possible.

In addition, Capt. Chris Kelenske and/or Nick Lyon need to explore more ways to help Flint, including the idea of an imminent danger declaration. *Has MSHDA explored HUD grants to help families who need to upgrade their service lines? Are there other resources we can draw from?*

Tuesday, Dec. 29: Governor releases statement on Flint water

This statement is meant to manage expectations on the timing of the report (probably another month at least) and to signal that action may come sooner than that (the Jan. 4 changes and those to be announced at the press conference).

"I've been briefed on the recent meeting of the task force studying the Flint water situation and I've read the report from the Office of the Auditor General on the processes used by DEQ to monitor Flint water.

""The bi-partisan task force has worked tirelessly to interview Flint, Genesee County, state and federal officials to complete its independent analysis. They are reviewing hundreds of documents at all levels of government and from the public health science community.

"I'd like to thank the task force for keeping me apprised of their continuing investigation. As they uncover more facts, it's clear to me we can do better. Their report may take another month or so, but if we need to make changes more swiftly, I plan to take immediate action.

"No matter what the testing requirements were, they were not enough to prevent this crisis. I want Michigan to be the state that is known for the safest water in the nation.

""When it comes to matters of health and quality of life, there is simply no room for error in testing for lead and other toxins. I understand there can be disagreements within the scientific community. That is why I have told my directors at MDEQ and DHHS to invite every external scientist who has worked on the Flint water issue to the state laboratory facilities to work as partners with us. Together, we should be able to affirm that we're using the very best testing protocols to ensure Flint residents have safe drinking water and that we're doing proper monitoring and remediation of blood levels and other health impacts over the long term.

"I want the Flint community and all citizens of Michigan to know how very sorry I am that this has happened.

"But I know an apology isn't enough. We've already allocated $10 million to test the water, distribute water filters, and help in other ways. On Thursday, I called Flint Mayor Karen Weaver, and we're going to sit down in the next week to discuss other ways the state can offer assistance.

"What happened in Flint is inexcusable. I want to assure residents there that we will work hard to make things right."

Monday, Jan. 4 – Personnel changes

Dave Murray talking point: "I can't speak to the specifics, but yes, there have been changes in personnel at the DEQ. We'll announce soon who you can contact to get information about Flint's water situation. For now, you can call me."

Thursday, Jan. 7 – Meeting between the Governor and Mayor Karen Weaver

Governor's talking point: "We had a great meeting today. Mayor Weaver had some great ideas that we want to flesh out. We'll announce soon how we plan to move forward in solving the problems with Flint water."

Possibly Jan. 11 or 13 - Press conference with the Governor and Mayor Weaver to announce action plan

Also in attendance: Point person Harvey Hollins, Directors Nick Lyons and Dan Wyant, Capt. Chris Kelenske, Healthy Water communications team Mel Brown and Ron Leix, Sen. Jim Ananich, Rep. ???, Marc Edwards?, Dr. Mona Hanna-Attisha, who else?

Talking points:

Weaver announces more state money to help Flint and talks about how she's encouraged by the Governor's action plan and looks forward to working with Harvey Hollins.

Harvey briefly describes his role – as the boots on the ground in Flint and the coordinator for state resources.

Gov. Snyder reiterates his sadness over the situation and says it calls for extraordinary measures, which the state is prepared to make:

- The state will form a team of independent and state water and lead level experts to go over the various results. The team will include Virginia Tech's Marc Edwards and Hurley Hospital's Dr. Mona Hanna-Attisha, along with state epidemiologists, DEQ experts, etc.
- The team will have full access to DEQ and DHHS records.
- Mel Brown and Ron Leix will be the Healthy Water team and serve as point people for all things Flint water and lead levels.
- The state is exploring the best options to provide more help for Flint, including an imminent danger declaration, HUD grants for infrastructure improvements, etc.
- We will document what we learn from this experience to help other cities with water/lead issues.

From: Holland, Meegan (GOV)
Sent: Thursday, December 24, 2015 12:05 PM
To: [redacted]
Subject: latest comms plan
Attachments: DRAFT Flint water communications plan.docx

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
Mobile: [redacted]
Twitter: @meholland

DRAFT: FLINT WATER PLAN

Thursday, Dec. 24: Gov. calls Karen Weaver to set up a meeting

Talking points:

"I've read the draft of a report from the state's Office of the Auditor General and I've been briefed on the task force's progress in its ongoing investigation.

"I want to work together with you to get this problem solved. As partners, we can get resources in place more quickly.

"I want to assure you this isn't a political move on my part – I'm a problem solver and I intend to be your partner in addressing this to make it right. I'm truly sorry that all this has happened.

"I have some ideas on how to get more resources for blood lead level testing and remediation – financial as well as state personnel, and I'd like to discuss those with you.

"It sounds like you have a block of time available on the morning of Jan. 7. Would you be able to come to Lansing so we could talk between 9-10 a.m.? If so, I'll make sure Beth Emmitt, my scheduler, confirms with Maxine Murray."

Saturday, Dec. 26, or Monday, Dec. 28: Getting organized

We need to get the ball rolling on creating a healthy water communications team – potentially Mel Brown of TED and Ron Leix of MSP's Emergency Management and Homeland Security Division. Both are genuine and empathetic, and can convey information in a reassuring way.

This duo would work with DHHS' and DEQ's respective communications teams, but also free up those teams to work on other issues not related to Flint water. The healthy water team would be the point people for anything concerning Flint water and lead issues, and will have the authority to assist Harvey Hollins, cut red tape for researchers who want access to DHHS and DEQ records, respond to media requests, edit and/or write press releases in conjunction with the Governor's communications team and more.

Rich Baird or another appropriate person needs to discuss with Steve Arwood and Col. Etue about "borrowing" Mel and Ron. We would like to introduce these two at the January press conference with the Governor and Mayor Weaver, saying, "These are the folks who will answer questions and provide information to media and stakeholders about the Flint water crisis."

Monday, Dec. 28, or Tuesday, Dec. 29: Asking researchers for help

Nick Lyon reaches out to Virginia Tech researcher Marc Edwards and Hurley Hospital's Dr. Mona Hanna-Attisha to help state lead and water experts who have worked on Flint's issues. The purpose is to share information, compare results and track how those results were reached to ensure best practices and accurate reporting.

We'd ask this of Edwards and Hanna-Attisha:

- Your research has been eye opening and we're hoping you'll be willing to join an effort to ensure Flint's water is safe.

- We'd like you to sit down with state epidemiologists and other researchers so you can discuss lead levels and other issues related to the Flint water crisis. There have been variances and we want to be as accurate as possible.
- We want you to have as much access to our data as is possible under HIPPA laws so we can determine the extent of the problem.
- We want the team to brainstorm ways to get Flint's water back to safe levels for drinking, and to help families learn how they can mitigate any effects from lead.
- Once the water is safe, we want your help in showing the people of Flint that their water is drinkable.
- If you're willing to help, we'd like to announce this at a press conference in January and would love to have you both attend, if possible.

In addition, Capt. Chris Kelenske and/or Nick Lyon need to explore more ways to help Flint, including the idea of an imminent danger declaration. *Has MSHDA explored HUD grants to help families who need to upgrade their service lines? Are there other resources we can draw from?*

Tuesday, Dec. 29: Governor releases statement on Flint water

This statement is meant to manage expectations on the timing of the report (probably another month at least) and to signal that action may come sooner than that (the Jan. 4 changes and those to be announced at the press conference).

"I've been briefed on the recent meeting of the task force studying the Flint water situation and I've read the report from the Office of the Auditor General on the processes used by DEQ to monitor Flint water.

"The bi-partisan task force has worked tirelessly to interview Flint, Genesee County, state and federal officials to complete its independent analysis. They are reviewing hundreds of documents at all levels of government and from the public health science community.

"I'd like to thank the task force for keeping me apprised of their continuing investigation. As they uncover more facts, it's clear to me we can do better. Their report may take another month or so, but if we need to make changes more swiftly, I plan to take immediate action.

"No matter what the testing requirements were, they were not enough to prevent this crisis.

"When it comes to matters of health and quality of life, we're committed to doing everything we can to protect the well-being of our citizens. I understand there can be disagreements within the scientific community. That is why I have told my directors at MDEQ and DHHS to invite every external scientist who has worked on the Flint water issue to the state laboratory facilities to work as partners with us. Together, we should be able to affirm that we're using the very best testing protocols to ensure Flint residents have safe drinking water and that we're doing proper monitoring and remediation of blood levels and other health impacts over the long term.

"I want the Flint community and all citizens of Michigan to know how very sorry I am that this has happened.

"But I know an apology isn't enough. We've already allocated $10 million to test the water, distribute water filters, and help in other ways. On Thursday, I called Flint Mayor Karen Weaver, and we're going to sit down in the next week to discuss other ways the state can offer assistance.

"What happened in Flint is inexcusable. I want to assure residents there that we will work hard to make things right."

Monday, Jan. 4 – Personnel changes

Dave Murray talking point: "I can't speak to the specifics, but yes, there have been changes in personnel at the DEQ. We'll announce soon who you can contact to get information about Flint's water situation. For now, you can call me."

Thursday, Jan. 7 – Meeting between the Governor and Mayor Karen Weaver

Governor's talking point: "We had a great meeting today. Mayor Weaver had some great ideas that we want to flesh out. We'll announce soon how we plan to move forward in solving the problems with Flint water."

Possibly Jan. 11 or 13 - Press conference with the Governor and Mayor Weaver to announce action plan

Also in attendance: Point person Harvey Hollins, Directors Nick Lyons and Dan Wyant, Capt. Chris Kelenske, Healthy Water communications team Mel Brown and Ron Leix, Sen. Jim Ananich, Rep. ???, Marc Edwards?, Dr. Mona Hanna-Attisha, who else?

Talking points:

Weaver announces more state money to help Flint and talks about how she's encouraged by the Governor's action plan and looks forward to working with Harvey Hollins.

Harvey briefly describes his role – as the boots on the ground in Flint and the coordinator for state resources.

Gov. Snyder reiterates his sadness over the situation and says it calls for extraordinary measures, which the state is prepared to make:

- The state will form a team of independent and state water and lead level experts to go over the various results. The team will include Virginia Tech's Marc Edwards and Hurley Hospital's Dr. Mona Hanna-Attisha, along with state epidemiologists, DEQ experts, etc.
- The team will have full access to DEQ and DHHS records.
- Mel Brown and Ron Leix will be the Healthy Water team and serve as point people for all things Flint water and lead levels.
- The state is exploring the best options to provide more help for Flint, including an imminent danger declaration, HUD grants for infrastructure improvements, etc.
- We will document what we learn from this experience to help other cities with water/lead issues.

From: Holland, Meegan (GOV)
Sent: Monday, December 28, 2015 5:24 PM
To: Hollins, Harvey (GOV)
Subject: RE: Update on OAG letter and our statement

Thank you … I'm definitely still feeling my way.

Here's hoping 2016 is productive …. AND fun!

- Meegan

From: Hollins, Harvey (GOV)
Sent: Monday, December 28, 2015 5:14 PM
To: Holland, Meegan (GOV) <HollandM2@michigan.gov>
Subject: Re: Update on OAG letter and our statement

I agree. By the way, you did an awesome job on the phone call with the Gov on the 24th. Happy New Year.

Best,
Harvey

On Dec 28, 2015, at 4:12 PM, Holland, Meegan (GOV) <HollandM2@michigan.gov> wrote:

> Thanks Harvey! And geez -- at some point it would be great to meet you face to face! I hope to get to Detroit sooner rather than later.
>
> Best,
> Meegan
>
> ---
>
> **From:** Hollins, Harvey (GOV)
> **Sent:** Monday, December 28, 2015 4:07 PM
> **To:** Holland, Meegan (GOV) <HollandM2@michigan.gov>; Calley, Brian (GOV) [redacted]; Snyder, Rick (GOV) [redacted] Walsh, John (GOV) <WalshJ@michigan.gov>; Redford, James (GOV) <RedfordJ@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Scott, Allison (GOV) <scotta12@michigan.gov>
> **Subject:** RE: Update on OAG letter and our statement
>
> Meegan—attached are a couple edits to the statement.
>
> ---
>
> **From:** Holland, Meegan (GOV)
> **Sent:** Monday, December 28, 2015 2:09 PM
> **To:** Calley, Brian (GOV) [redacted] Snyder, Rick (GOV) [redacted] Walsh, John (GOV) <WalshJ@michigan.gov>; Redford, James (GOV) <RedfordJ@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Clement,

Elizabeth (GOV) <clemente@michigan.gov>; Scott, Allison (GOV) <scotta12@michigan.gov>
Subject: Update on OAG letter and our statement

Colleagues,

The Office of the Auditor General has released the letter. We've developed a statement, based on the summary you read the other night, that spells out how things came down. We hope media will pick up on the fact that the DEQ was largely following protocols, or in one case, an ambiguous one that EPA later clarified.

FYI - Sen. Ananich has released the following in regard to the OAG letter: "The Auditor General has provided an important piece of this puzzle and I'm sure the extended report they are working on will reveal additional information," said Ananich. "What's clear is that corrosion control should have been used and there are serious failings in our system that must be addressed. Between the FOIA emails released recently and these findings, it's obvious that legislative oversight is the best way to see how all of these pieces fit together. I expect holding hearings to be high on the agenda when the Legislature returns."

On Tuesday, we plan to release this statement by the Governor. It's been tweaked slightly since our review the other night, thanks to feedback from the Governor, Jim Redford and others.

"I've been briefed on the recent meeting of the task force studying the Flint water situation and I've read the report from the Office of the Auditor General on the processes used by DEQ to monitor Flint water.

"The bi-partisan task force has worked tirelessly to interview Flint, Genesee County, state and federal officials to complete its independent analysis. They are reviewing hundreds of documents at all levels of government and from the public health science community.

"I'd like to thank the task force for keeping me apprised of their continuing investigation. As they uncover more facts, it's clear to me we can do better. Their report may take another month or so, but if we need to make changes more swiftly, I plan to take immediate action.

"No matter what the testing requirements were, they were not enough to prevent this crisis.

"When it comes to matters of health and quality of life, we're committed to doing everything we can to protect the well-being of our citizens.

"I understand there can be disagreements within the scientific community. That is why I have told my directors at MDEQ and DHHS to invite every external scientist who has worked on the Flint water issue to the state laboratory facilities to work as partners with us. Together, we should be able to affirm that we're using the very best testing protocols to ensure Flint residents have safe drinking water and that we're doing proper monitoring and remediation of blood levels and other health impacts over the long term.

"I want the Flint community and all citizens of Michigan to know how very sorry I am that this has happened.

"But I know an apology isn't enough. We've already allocated $10 million to test the water, distribute water filters, and help in other ways. On Thursday, I called Flint Mayor Karen Weaver, and we're going to sit down in the next week to discuss other ways the state can offer assistance.

"I want to assure residents there that we will work hard to make things right."

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
[redacted]
Twitter: @meholland

From: Holland, Meegan (GOV)
Sent: Tuesday, December 29, 2015 1:21 PM
To: Posthumus, Dick (GOV); Walsh, John (GOV); Baird, Richard (GOV); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Scott, Allison (GOV); Hollins, Harvey (GOV); [redacted] Redford, James (GOV)
Subject: Flint water statement

Here is a statement from the Governor that will go out around 2-2:30 p.m. to the media. We'll also give a heads up to executive staffers and some others. - Meegan

---

When I became aware that the city of Flint's water showed elevated lead levels and that the state's handling of the situation was being questioned, I requested funding to switch the source back to the Great Lakes Water Authority and appointed an independent task force to identify possible missteps and areas for improvement.

The task force has done an exceptional job, reviewing stacks of documents and interviewing scores of Flint, Genesee County, state and federal officials.

Although the task force's final report is not yet completed, it has made me aware of some interim findings and corrective steps that I have decided to take immediately in order to restore trust in how the state keeps its citizens safe and informed.

We'll continue to work with the community members to make sure we hear and respond to their concerns.

In addition, MDEQ Director Dan Wyant has offered his resignation, and I've determined that it's appropriate to accept it. I'm also making other personnel changes at MDEQ to address problems cited by the task force.

But changes in leadership and staff are not enough. I understand there can be disagreements within the scientific community. That is why I have directed both the departments of Environmental Quality and Health and Human Services to invite every external scientist who has worked on this issue to be our partners in helping us improve Flint water. Let's share research on water and blood lead level testing so we can arrive at accurate and mutually supported conclusions. Together, we should work to affirm that we're using the very best testing protocols to ensure Flint residents have safe drinking water and that we're taking steps to protect their health over the short and long term.

I want the Flint community to know how very sorry I am that this has happened. And I want all Michigan citizens to know that we will learn from this experience, because Flint is not the only city that has an aging infrastructure.

I know many Flint citizens are angry and want more than an apology. That's why I'm taking the actions today to ensure a culture of openness and trust. We've already allocated $10 million to test the water, distribute water filters, and help in other ways. Last week, I called Flint Mayor Karen Weaver, and we're going to meet soon to discuss other ways the state can offer assistance.

These are only initial steps - we fully expect to take more actions following the recommendations of our task force. When it comes to matters of health and quality of life, we're committed to doing everything we can to protect the well-being of our citizens.

Meegan Holland
Director of Communications for Gov. Rick Snyder

Office: 517-335-6397
[redacted]
Twitter: @meholland

From: Holland, Meegan (GOV)
Sent: Tuesday, December 29, 2015 1:45 PM
To: Clement, Elizabeth (GOV)
Subject: Here's executive staff memo

Feel free to send this out asap. – Meegan

Team,

As you are aware, we have been working closely with the independent task force that has been reviewing state, local and federal actions regarding the serious health issues related to water in Flint.

Although the task force's final report is not yet complete, members have made the Governor aware of some interim findings, and there are interim steps the Governor has decided to take immediately in order to restore trust in how we in state government keep residents safe and informed.

As part of this process, Dan Wyant, director of the Department of Environmental Quality, has offered his resignation, and Governor has reluctantly decided to accept it. There are likely to be other personnel changes in MDEQ as well.

I want to thank Dan for his service. He has been the DEQ director since the start of the administration, and previously headed the Agriculture Department under both Gov. Engler and Gov. Granholm. He is passionate about public service and protecting our state's environment.

The situation in Flint is serious and challenging. We will continue work closely with the task force and city leaders as we move forward, committed to protecting the health of people living in Flint and around our state.

Sincerely,

Jarrod Agen

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
Mobile: [redacted]
Twitter: @meholland

From: Holland, Meegan (GOV)
Sent: Tuesday, December 29, 2015 5:36 PM
To: 'Baird, Richard (GOV)'; Jarrod Agen (GOV) (AgenJ@michigan.gov)
Subject: RE: Letter of resignation -- Wurfel

The Detroit News has Brad resigning in this story. The story also quotes Edwards and Dr. Mona, saying Dan shouldn't necessarily have been fired. (!)

Ananich criticizes the culture of the DEQ, and very much echoes the task force report.

- Meegan

From: Baird, Richard (GOV)
Sent: Tuesday, December 29, 2015 5:30 PM
To: Holland, Meegan (GOV) <HollandM2@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: FW: Letter of resignation -- Wurfel

From: Wurfel, Brad (DEQ)
Sent: Tuesday, December 29, 2015 5:15 PM
To: Winters, Jan (MCSC)
Cc: Sygo, Jim (DEQ); Eyer, Tamara (DEQ); Thelen, Mary Beth (DEQ); Baird, Richard (GOV)
Subject: Letter of resignation -- Wurfel

Ms. Winters,
It has been an honor and a privilege to serve the Michigan Department of Environmental Quality as Communications Director for the past five years.
I'm quite proud of countless accomplishments this team has achieved.

However, I am tendering my two weeks' notice, effective January 16, 2016.

Thank you all for a great run. Best wishes in the new year.
b

Brad Wurfel
Communications Director,
Michigan Department of Environmental Quality
wurfelb@michigan.gov
[redacted]

From: Holland, Meegan (GOV)
Sent: Thursday, December 31, 2015 7:47 AM
To: Becker, Timothy (DHHS)
Subject: RE: Attorney Client Work Product (Draft), Privileged and Confidential

Thanks for sharing that supplemental plan, Tim.

And Happy New Year to everyone (Go Green!)

- Meegan

From: Becker, Timothy (DHHS)
Sent: Wednesday, December 30, 2015 11:35 PM
To: Baird, Richard (GOV) <bairdr@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Kelenske, Chris (MSP) <KelenskeC@michigan.gov>; Holland, Meegan (GOV) <HollandM2@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; Redford, James (GOV) <RedfordJ@michigan.gov>; Creagh, Keith (DNR) <creaghk@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>
Cc: Etue, Kriste (MSP) <EtueK@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>
Subject: RE: Attorney Client Work Product (Draft), Privileged and Confidential

Attached is a supplemental MDHHS advanced to SBO today (John: Farah sent to Nancy, Harkins, and team). This addresses surveillance, case management, and lead abatement in homes including pipes. It does not yet establish the long-term "health fund" some have advocated for. On the proposal document I concur with Director Creagh's and Mr. Redford's suggestions on a slight re-wording of statement of need. I am comfortable with the general framework of the group. I agree with Captain Kelenske that the state needs to lead the group. I think with the Executive and MSP chairing the state is providing the requested prospective leadership. We have built in extensive participation from city, county, and subject matter experts and we will be completely transparent with all partners.

From: Baird, Richard (GOV)
Sent: Wednesday, December 30, 2015 6:57 PM
To: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Kelenske, Chris (MSP) <KelenskeC@michigan.gov>; Holland, Meegan (GOV) <HollandM2@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; Redford, James (GOV) <RedfordJ@michigan.gov>; Becker, Timothy (DHHS) <beckert1@michigan.gov>; Creagh, Keith (DNR) <creaghk@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>
Cc: Etue, Kriste (MSP) <EtueK@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>
Subject: Attorney Client Work Product (Draft), Privileged and Confidential

Team:

Today Harvey and I met with the Flint Water Task Force. It was a good meeting. People were pleased with the G's statement from the prior day. Captain Kelenske joined us and we had a very good discussion about moving forward with the creation of the Flint Water Crisis Agency Coordinating Committee (FIACC). Tim Becker and Captain Kelenske provided me with a fair amount of input. I also read the City of Flint Incident Action Plan for a State of Emergency which Chris received today (enclosed for those who wish to read it as well). I have distilled all of this into a two page plan that I want your edits and comments on and a one page organizational chart (now presented in the "governor's colors" according to our fine people in Communications). Spoiler alert—I made Captain Kelenske Vice Chair of the whole shebang (with the Colonel's blessing) so Harvey wouldn't get lonely.

Here is my ask of you:

1) Within 24 (sooner if you can) hours give me your comments and input
2) Tomorrow I will turn around a final document for Jarrod to review with the Governor either New Year's Day or Saturday
3) Ideally, Governor will approve Harvey sending it to Mayor Weaver Saturday (Sunday latest)
4) Mayor needs to know that this is what the Governor wishes to discuss at the meeting January 7 along with financial resources that we still need some estimates on cost from DHHS for
5) Meegan and Dave need to noodle how best to get out front with this and change the narrative focus on Monday's Genesee County declaration of emergency

I know we are all working way too hard for what should be a rest and recharge period but I do appreciate everyone's efforts and I know the Boss really does as well.

Regards,

Rich

From: Holland, Meegan (GOV)
Sent: Sunday, January 03, 2016 2:32 PM
To: Hollins, Harvey (GOV); 'calley[redacted] Scott, Allison (GOV); Clement, Elizabeth (GOV); Baird, Richard (GOV); Murray, David (GOV); Agen, Jarrod (GOV); Redford, James (GOV); Posthumus, Dick (GOV)
Subject: URGENT - DRAFT: FWIACC proposal
Attachments: FWIACC document v2.docx; IA Coord Com Org Chart 233264.pptx; FWIACC cover letter.docx

Colleagues,

Here is a cover letter, FWIACC plan and org chart. Harvey is planning on sending this to Mayor Karen Weaver today.

If you have any feedback, please provide it immediately, since I'll be out of pocket starting at 3:15 p.m. (sorry for the late notice).

- Meegan

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
[redacted]
Twitter: @meholland

DRAFT: A Proposal to Create the Flint Water Inter-Agency Coordinating Committee (FWIACC)

Statement of Need

To better coordinate resources and personnel and react with urgency, Harvey Hollins and MSP Capt. Chris Kelenske have been tasked with creating FWIACC, subject to the approval and endorsement by Flint Mayor Karen Weaver.

We are also recommending, by executive order, that Gov. Rick Snyder authorizes this committee to help restore safe water in Flint and coordinate efforts addressing health/behavioral consequences from lead ingestion.

This inter-agency group will fully engage with all stakeholders committed to solving Flint water issues. Equal partners. Equal leadership. Equal responsibility. Equal chance to be part of the solution to an important and not fully understood problem.

FWIACC will be facilitated by Hollins and Kelenske, who represent statewide resources and constituencies, with support from senior members of the Governor's office.

An overview of FWIACC's goals:

- Create a routine information process between all parties.
- Pursue other avenues of funding, including federal grants and legislative appropriations.
- Implement without delay any appropriate mechanisms that are called for in the Emergency Management Act or the Stafford Disaster Relief and Emergency Assistance Act. These may include local emergency operations plans and guides.

Action Plan

Immediately, FWIACC will:

1. Establish an interagency workgroup described in the attached organizational chart. It will be comprised of DHHS, MDEQ, MSP, Treasury, Genesee County, City of Flint, MDE, LARA and external subject matter experts (SMEs). Other entities may be added as needed. Personnel must be goal-oriented, transparent with findings, and able to accomplish FWIACC Incident Action Plan items created by the state in a timely manner. The FWIACC plan would be created with city, county, state and federal needs in mind.

2. Assemble staff with competencies in disaster/emergency planning, operations and finance as outlined under the National Incident Management System (NIMS). Staff will be accountable to the FWIACC leadership to track resource requests and document progress on the FWIACC incident action plan.

3. Utilize the National Incident Management System and Unified/Incident Command as appropriate.

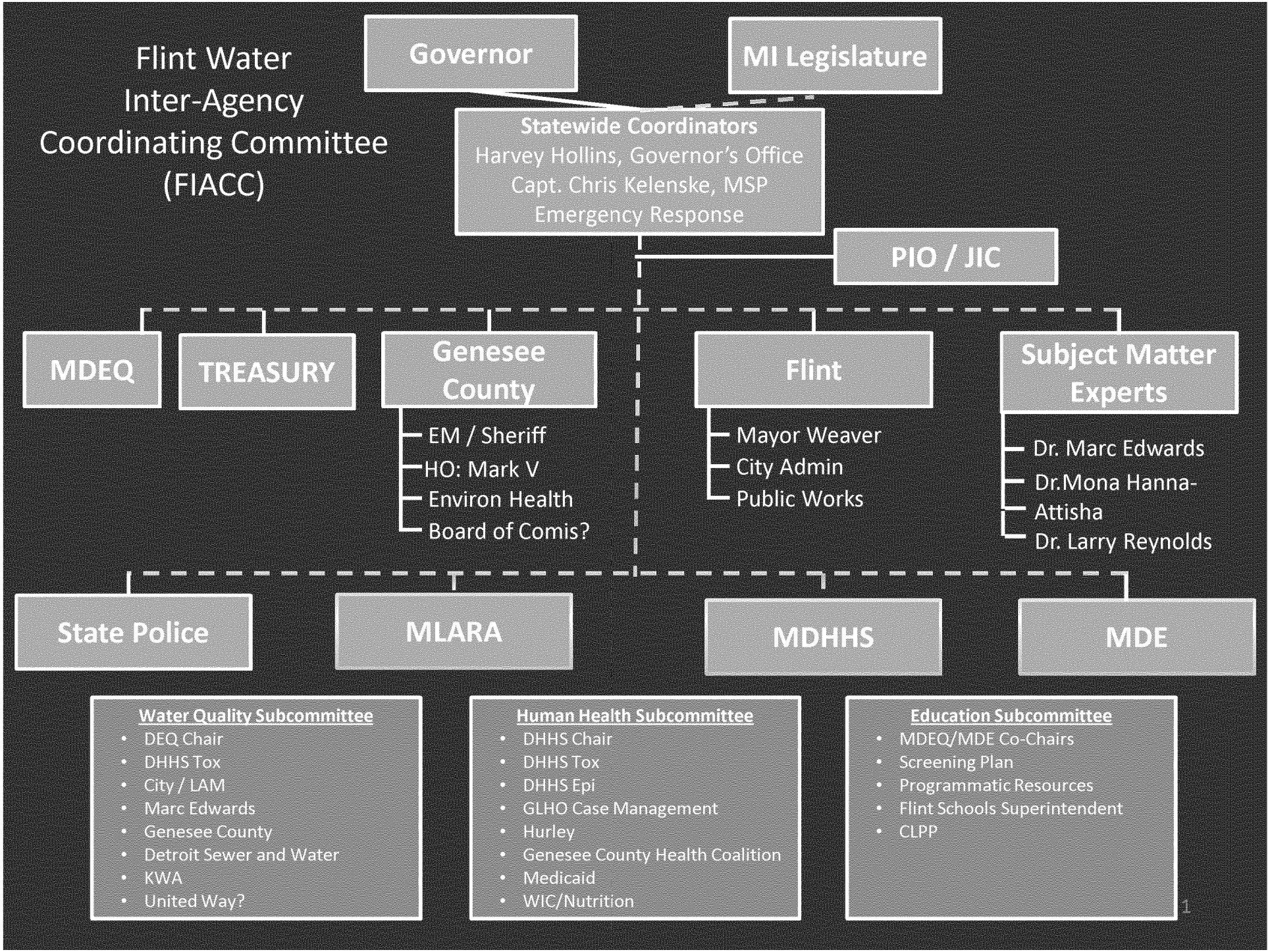
4. Establish routine communications protocols at the operational, executive and legislative levels as determined appropriate.

5. Establish interagency workgroup objectives using the following as a starting point.

Interagency Workgroup Objectives

1. Determine and convey acceptable standards for potable water.
    - Identify needed remediation.
    - Convey the remediation plan objectives to all stakeholders and interested parties.
    - Create logistics for distributing water and filters, particularly to homebound citizens.
    - Implement the plan.
2. Determine health impacts for the impacted population.
    - Identify treatment methods, nutrition education and protocols for monitoring, neurodevelopmental screening, access to DBP specialists and psychologists/psychiatrists, expanded county services, etc.
    - Convey the treatment plan objectives to interested parties.
    - Implement the plan.
3. Establish a public information protocol to effectively inform the community.
    - Identify existing public information outlets within the city, county and state, including schools, churches and other formal and informal distribution networks.
    - Establish a Joint Information Center.
    - Provide for emergency alerts and updates.
    - Determine the process for approving official information before it's disseminated.
    - Convey to interested parties.
4. Assess the status of the infrastructure and determine feasible actions to upgrade the water system.
    - Determine current state of the infrastructure.
    - Develop priorities, costs and potential funding sources for infrastructure upgrades as part of a long term recovery plan.
    - Seek partners to assist (NGOs, Foundations, Business, etc.).
    - Implement the plan.

Flint Water Inter-Agency Coordinating Committee (FIACC)



January 3, 2016

To: Mayor Karen Weaver

From: Harvey Hollins

Governor Snyder and several members of his team do not believe we can wait for the necessary documentation for FEMA to act on any emergency declaration – and that an action plan should be fired up now by our State and Local entities and bring together agencies and stakeholders that need to communicate and coordinate more effectively regarding next steps and resources.

Our working draft title is the Flint Water Inter-Agency Coordinating Committee (FWIACC), and it would immediately address ways at every level to restore safe water and monitor/mitigate the effects of the lead.

In addition to Governor Snyder, the key officials working on this blueprint were MSP Capt. Chris Kelenske, DHHS Chief Deputy Tim Becker, DHHS Director Nick Lyon, Rich Baird and myself. The need for engaged central coordination has also been recommended by the Governor's Flint Water After-Action Task Force, of which Dr. Larry Reynolds is a member. Governor Snyder has endorsed this approach and has asked me to provide you with a draft copy in advance of your meeting with him on January 7. If you agree, we will organize this committee immediately, and the Governor will issue an executive order to authorize FWIACC to work on the issue for the long term .

As you know, there is a significant amount of work to be done before the Federal government will approve an emergency declaration under the Emergency Management Act. FWIACC could begin its work immediately and would be in place to complement, not replace any action group ultimately formed by an emergency declaration. And we believe it would demonstrate how to best leverage essential support addressing manmade emergencies like this, since existing laws are more oriented toward natural disasters.

We brainstormed who should be included in this initial emergency response, with the idea that you and other stakeholders may have recommendations on others who need to be added.

You will note the organization chart and the proposal description is not a normal hierarchical entity. This is a collaborative, stakeholder-driven partnership. Chris and I would facilitate it, but it is a partnership of city, county and state viewpoints, and would include outside experts like Marc Edwards and Dr. Mona Hanna-Attisha.

All parties will be required to be transparent about their ideas and findings, agreeing to accountability measures and reporting on them on a regular basis.

Please let me know your thoughts on this approach and also other agenda items you wish to see on January 7. If you agree, we would also invite the interim DEQ director, Keith Creagh, and the newly appointed spokesperson to meet you then.

From: Holland, Meegan (GOV)
Sent: Monday, January 04, 2016 12:56 PM
To: 'Leix, Ron (MSP)'
Subject: RE: My part of the statement

Thanks – I'll put it all together with Dave M.'s help and will get back to you!

- Meegan

From: Leix, Ron (MSP)
Sent: Monday, January 04, 2016 12:55 PM
To: Holland, Meegan (GOV) <HollandM2@michigan.gov>
Cc: Banner, Shanon (MSP) <BannerS@michigan.gov>
Subject: RE: My part of the statement

Hi Meegan,

A quick overview about what takes place next.

Thanks,

Ron

Ron Leix
Public Information Officer (PIO)
Emergency Management
and Homeland Security Division
Michigan State Police
4000 Collins Road
Lansing, MI 48910
TX: (517) 336-6464
[redacted]

"A PROUD tradition of SERVICE through EXCELLENCE, INTEGRITY, and COURTESY"

==========

- The Michigan State Police, Emergency Management and Homeland Security Division is working with the Genesee County Emergency Management Coordinator to gather information about the resources needed for a Governor's declaration.

- The state police has been closely engaged in the situation since the beginning of this crisis, meeting with both county and city officials to guide them through the emergency management process. Due to the uniqueness of this situation, we have to look at all possible options to help Flint residents.

- Beginning immediately, we're viewing this as an emergency and are not waiting to get moving on this problem. We're working closely with Mayor Weaver and other city and county officials to bring together state, county and city agencies and stakeholders to coordinate efforts and streamline communication.

From: Holland, Meegan (GOV)
Sent: Monday, January 04, 2016 11:52 AM
To: Leix, Ron (MSP)
Subject: My part of the statement

Ron – quick overview of next steps and then….

But we aren't waiting for a declaration. We're viewing this as an emergency, regardless of whether it meets any legal definition. We believe we must not wait to get moving on this problem. We're working closely with Mayor Weaver and other city and county officials to bring together state, county and city agencies and stakeholders to coordinate efforts and streamline communication.

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
[redacted]
Twitter: @meholland

JOIN THE MSP

Subject: FW: Internal Flint Water Meeting
Location: Executive Conference Room, 2nd Romney

Start: Wed 1/28/2015 10:00 AM
End: Wed 1/28/2015 11:00 AM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: Posthumus, Dick (GOV)

-----Original Appointment-----
From: Posthumus, Dick (GOV)
Sent: Wednesday, January 21, 2015 8:59 AM
To: Posthumus, Dick (GOV); Clement, Elizabeth (GOV); Muchmore, Dennis (GOV); Walsh, John (GOV); Wisniewski, Wendy (GOV); Hall, Jean (GOV); Pleyte, Beth (Treasury); Saxton, Thomas (Treasury); Clayton, Stacie (GOV); Hollins, Harvey (GOV); Murray, David (GOV)
Subject: Internal Flint Water Meeting
When: Wednesday, January 28, 2015 10:00 AM-11:00 AM (UTC-05:00) Eastern Time (US & Canada).
Where: Executive Conference Room, 2nd Romney

Attending:
Dick Posthumus
Dennis Muchmore
John Walsh
Beth Clement
Tom Saxton
Harvey Hollins
Dave Murray

From: Rich Baird [redacted]
Sent: Monday, December 28, 2015 9:48 AM
To: Brownfield, Michael (GOV)
Subject: Fwd: DRAFT: Flint communications plan
Attachments: DRAFT Flint water communications plan.docx

Sent from my Verizon 4G LTE Droid
---------- Forwarded message ----------
From: Meegan Holland [redacted]
Date: Dec 23, 2015 10:05 PM
Subject: DRAFT: Flint communications plan
To: Richard Baird [redacted]
Cc:

Rich and Jarrod,

Here is a communications plan to carry us through the next several days.

Jarrod, Rich and I have gone over this and tweaked it. I would have sent you the original version but just now got your personal email. For now, we prefer to keep this plan offline. Please read this soon, because it kicks in tomorrow, as you'll see!

Let me know if you have any questions. And Rich, I hope I incorporated all your suggestions.

- Meegan

--
Meegan Holland
[redacted]
Twitter: @meholland

DRAFT: FLINT WATER PLAN

Thursday, Dec. 24: Gov. calls Karen Weaver to set up a meeting

Talking points:

"I've read the draft of a report from the state's Office of the Auditor General and I've been briefed on the task force's progress in its ongoing investigation.

"I want to work together with you to get this problem solved. As partners, we can get resources in place more quickly.

"I want to assure you this isn't a political move on my part – I'm a problem solver and I intend to be your partner in addressing this to make it right. I'm truly sorry that all this has happened.

"I have some ideas on how to get more resources for blood lead level testing and remediation – financial as well as state personnel, and I'd like to discuss those with you.

"It sounds like you have a block of time available on the morning of Jan. 7. Would you be able to come to Lansing so we could talk between 9-10 a.m.? If so, I'll make sure Beth Emmitt, my scheduler, confirms with Maxine Murray."

Saturday, Dec. 26, or Monday, Dec. 28: Getting organized

We need to get the ball rolling on creating a healthy water communications team – potentially Mel Brown of TED and Ron Leix of MSP's Emergency Management and Homeland Security Division. Both are genuine and empathetic, and can convey information in a reassuring way.

This duo would work with DHHS' and DEQ's respective communications teams, but also free up those teams to work on other issues not related to Flint water. The healthy water team would be the point people for anything concerning Flint water and lead issues, and will have the authority to assist Harvey Hollins, cut red tape for researchers who want access to DHHS and DEQ records, respond to media requests, edit and/or write press releases in conjunction with the Governor's communications team and more.

Rich Baird or another appropriate person needs to discuss with Steve Arwood and Col. Etue about "borrowing" Mel and Ron. We would like to introduce these two at the January press conference with the Governor and Mayor Weaver, saying, "These are the folks who will answer questions and provide information to media and stakeholders about the Flint water crisis."

Monday, Dec. 28, or Tuesday, Dec. 29: Asking researchers for help

Nick Lyon reaches out to Virginia Tech researcher Marc Edwards and Hurley Hospital's Dr. Mona Hanna-Attisha to help state lead and water experts who have worked on Flint's issues. The purpose is to share information, compare results and track how those results were reached to ensure best practices and accurate reporting.

We'd ask this of Edwards and Hanna-Attisha:

- Your research has been eye opening and we're hoping you'll be willing to join an effort to ensure Flint's water is safe.

- We'd like you to sit down with state epidemiologists and other researchers so you can discuss lead levels and other issues related to the Flint water crisis. There have been variances and we want to be as accurate as possible.
- We want you to have as much access to our data as is possible under HIPPA laws so we can determine the extent of the problem.
- We want the team to brainstorm ways to get Flint's water back to safe levels for drinking, and to help families learn how they can mitigate any effects from lead.
- Once the water is safe, we want your help in showing the people of Flint that their water is drinkable.
- If you're willing to help, we'd like to announce this at a press conference in January and would love to have you both attend, if possible.

In addition, Capt. Chris Kelenske and/or Nick Lyon need to explore more ways to help Flint, including the idea of an imminent danger declaration. *Has MSHDA explored HUD grants to help families who need to upgrade their service lines? Are there other resources we can draw from?*

Tuesday, Dec. 29: Governor releases statement on Flint water

This statement is meant to manage expectations on the timing of the report (probably another month at least) and to signal that action may come sooner than that (the Jan. 4 changes and those to be announced at the press conference).

"I've been briefed on the recent meeting of the task force studying the Flint water situation and I've read the report from the Office of the Auditor General on the processes used by DEQ to monitor Flint water.

"No matter what the testing requirements were, they were not enough to prevent this crisis. I want Michigan to be the state that is known for the safest water in the nation.

"I'd like to thank the task force for keeping me apprised of their continuing investigation. As they uncover more facts, it's clear to me we can do better. The report may take another month or so, but if we need to make changes more swiftly, I plan to take immediate action.

"The bottom line is we'll take responsibility for our part in Flint's water crisis. I'm committed to partnering with all of the stakeholders who are as concerned about public health as I am. I vow to make sure that Flint citizens will have safe drinking water. And I'm so very sorry that this happened.

"But I know an apology isn't enough. We've already allocated $10 million to test the water, distribute water filters, and help in other ways. On Thursday, I called Flint Mayor Karen Weaver, and we're going to sit down in the next week to discuss other ways the state can offer assistance.

"What happened in Flint is inexcusable. I want to assure residents there that we will work hard to make things right."

Monday, Jan. 4 – Personnel changes

Dave Murray talking point: "I can't speak to the specifics, but yes, there have been changes in personnel at the DEQ. We'll announce soon who you can contact to get information about Flint's water situation. For now, you can call me."

Thursday, Jan. 7 – Meeting between the Governor and Mayor Karen Weaver

Governor's talking point: "We had a great meeting today. Mayor Weaver had some great ideas that we want to flesh out. We'll announce soon how we plan to move forward in solving the problems with Flint water."

Possibly Jan. 11 or 13 - Press conference with the Governor and Mayor Weaver to announce action plan

Also in attendance: Point person Harvey Hollins, Directors Nick Lyons and Dan Wyant, Capt. Chris Kelenske, Healthy Water communications team Mel Brown and Ron Leix, Sen. Jim Ananich, Rep. ???, Marc Edwards?, Dr. Mona Hanna-Attisha, who else?

Talking points:

Weaver announces more state money to help Flint and talks about how she's encouraged by the Governor's action plan and looks forward to working with Harvey Hollins.

Harvey briefly describes his role – as the boots on the ground in Flint and the coordinator for state resources.

Gov. Snyder reiterates his sadness over the situation and says it calls for extraordinary measures, which the state is prepared to make:

- The state will form a team of independent and state water and lead level experts to go over the various results. The team will include Virginia Tech's Marc Edwards and Hurley Hospital's Dr. Mona Hanna-Attisha, along with state epidemiologists, DEQ experts, etc.
- The team will have full access to DEQ and DHHS records.
- Mel Brown and Ron Leix will be the Healthy Water team and serve as point people for all things Flint water and lead levels.
- The state is exploring the best options to provide more help for Flint, including an imminent danger declaration, HUD grants for infrastructure improvements, etc.
- We will document what we learn from this experience to help other cities with water/lead issues.

From: Hall, Jean (GOV)
Sent: Wednesday, November 04, 2015 8:04 AM
To: Brownfield, Michael (GOV)
Subject: RE: DEQ Seeks Gov. Signature- Letter to EPA - Flint Safe Drinking Water POC - NEEDED BY Tues. 11.10.15

Good point. Thank you.

Jean Hall
Executive Assistant
Office of Strategic Policy
Executive Office of Governor Rick Snyder
Hallj16@michigan.gov
517-241-5493

From: Brownfield, Michael (GOV)
Sent: Wednesday, November 04, 2015 7:58 AM
To: Hall, Jean (GOV) <hallj16@michigan.gov>
Subject: RE: DEQ Seeks Gov. Signature- Letter to EPA - Flint Safe Drinking Water POC - NEEDED BY Tues. 11.10.15

Looks fine to me, but given the subject matter I think you probably want to get a sign off from someone who has been plugged into this issue (Beth or Jarrod, I guess.)

From: Hall, Jean (GOV)
Sent: Tuesday, November 03, 2015 4:44 PM
To: Muchmore, Dennis (GOV); Mcbride, Bill (GOV); Agen, Jarrod (GOV); Walsh, John (GOV)
Cc: Scott, Allison (GOV); Clement, Elizabeth (GOV); Khouri, Claire (GOV); Wurfel, Sara (GOV); Brown, Eric (GOV); Blackwell, Rob (GOV); Arwood, Cheri (GOV); Hansen, Rachel (GOV); Taylor, Nicole (GOV); Brownfield, Michael (GOV); Redford, James (GOV); Wisniewski, Wendy (GOV); Thomet, Ruth (GOV); Stoken, Laura (GOV); Kennedy, Jordan (GOV); Lukasik, Liz (GOV); Weber, Travis (GOV); Ayers, Angela (GOV)
Subject: DEQ Seeks Gov. Signature- Letter to EPA - Flint Safe Drinking Water POC - NEEDED BY Tues. 11.10.15

Hello All,

DEQ is seeking the Governor's signature on the attached letter to Dr. Susan Hedman, Regional Administrator, USEPA, Region 5. The letter designates Jim Sygo, Chief Deputy Director, MDEQ as the DEQ point person for the USEPA – Region 5 Flint Safe Drinking Water Task Force.

For your reference, DEQ provided the attached Transmittal Form , along with a copy of the October 21 Flint Drinking Water Action Plan Update which includes a summary about the conference call with USEPA and MDEQ where the USEPA requested this letter. The attachment also includes the USEPA's October 16 press release about the establishment of the Task Force (see yellow highlighted text in both attachments)

Your approval, input, and/or changes are needed by EOB by **Tues. 11.10.15.**

If you have any questions or need additional background information, please let me know.

Thank you.

Jean Hall
Executive Assistant
Office of Strategic Policy
Executive Office of Governor Rick Snyder
HallJ16@michigan.gov
517-241-5493

From: Murray, David (GOV)
Sent: Thursday, November 19, 2015 7:52 PM
To: Brownfield, Michael (GOV)
Subject: Re: Information about Flint blood lead level testing results release
Attachments: image001.jpg

Sent it to her separately.

Sent from my iPhone

On Nov 19, 2015, at 7:46 PM, Brownfield, Michael (GOV) <BrownfieldM2@michigan.gov> wrote:

> Hey Dave - Can you make sure Laura Stoken is on the distribution for talking points, etc., in case they get calls?
>
> Thanks!

From: Murray, David (GOV)
Sent: Thursday, November 19, 2015 7:09 PM
To: Snyder, Rick (GOV); Calley, Brian (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Redford, James (GOV); Posthumus, Dick (GOV); Hollins, Harvey (GOV); Baird, Richard (GOV); Agen, Jarrod (GOV); Wurfel, Sara (GOV); Forstner, Nathaniel (GOV); Scott, Allison (GOV); Walsh, John (GOV); Brownfield, Michael (GOV); Wisniewski, Wendy (GOV); Mcbride, Bill (GOV)
Subject: Information about Flint blood lead level testing results release

> Good evening Governor and team,
>
> We're working with the Department of Health and Human Services on its release of blood lead level testing results, with some continuing discussions about messaging and timing. I've attached the draft press release, an informational graphic and talking points.
>
> This is a challenging situation to be sure, but I think these results are fairly encouraging considering some of the heated rhetoric on this issue. We are discussing a "people first" approach to messaging, and perhaps issuing early next week rather than on at 9:30 a.m. on a Friday so it doesn't look like we are burying news.
>
> In a nutshell:
>
> ■ Blood lead level testing results released today revealed that 24 of 963 adults and children tested in Flint in October had elevated levels, according to the Michigan Department of Health and Human Services.

- MDHHS is working closely with the Genesee County Health Department to reach out to families testing with higher levels and help them reduce their exposure to lead sources.

- Information was gathered from tests administered citywide to 963 children and adults between October 1 and October 30. Eighteen people age 17 or younger had elevated blood lead levels. Six adults over the age 18 were identified with elevated blood lead levels.

- The testing and follow-up work is part of our action plan.

Dave Murray
Deputy Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

From: Murray, David (GOV)
Sent: Thursday, November 19, 2015 10:07 PM
To: Brownfield, Michael (GOV)
Subject: Re: Information about Flint blood lead level testing results release

We need to come up with a better system of getting her info, because what we're doing now clearly isn't working. She also needs to be a little less confrontational.

I'm working on building a better folder in the shared drive where we can throw things like points and backgrounders so everyone has access.

We'll get there.

Sent from my iPhone

On Nov 19, 2015, at 8:09 PM, Brownfield, Michael (GOV) <BrownfieldM2@michigan.gov> wrote:

> cool! thanks!
>
> ---
>
> **From:** Murray, David (GOV)
> **Sent:** Thursday, November 19, 2015 7:51 PM
> **To:** Brownfield, Michael (GOV)
> **Subject:** Re: Information about Flint blood lead level testing results release
>
> Sent it to her separately.
>
> Sent from my iPhone
>
> On Nov 19, 2015, at 7:46 PM, Brownfield, Michael (GOV) <BrownfieldM2@michigan.gov> wrote:
>
> > Hey Dave - Can you make sure Laura Stoken is on the distribution for talking points, etc., in case they get calls?
> >
> > Thanks!
> >
> > ---
> >
> > **From:** Murray, David (GOV)
> > **Sent:** Thursday, November 19, 2015 7:09 PM
> > **To:** Snyder, Rick (GOV); Calley, Brian (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Redford, James (GOV); Posthumus, Dick (GOV); Hollins, Harvey (GOV); Baird, Richard (GOV); Agen, Jarrod (GOV); Wurfel, Sara (GOV); Forstner, Nathaniel (GOV); Scott, Allison (GOV); Walsh, John (GOV); Brownfield, Michael (GOV); Wisniewski, Wendy (GOV); Mcbride, Bill (GOV)
> > **Subject:** Information about Flint blood lead level testing results release
> >
> > Good evening Governor and team,

We're working with the Department of Health and Human Services on its release of blood lead level testing results, with some continuing discussions about messaging and timing. I've attached the draft press release, an informational graphic and talking points.

This is a challenging situation to be sure, but I think these results are fairly encouraging considering some of the heated rhetoric on this issue. We are discussing a "people first" approach to messaging, and perhaps issuing early next week rather than on at 9:30 a.m. on a Friday so it doesn't look like we are burying news.

In a nutshell:

- Blood lead level testing results released today revealed that 24 of 963 adults and children tested in Flint in October had elevated levels, according to the Michigan Department of Health and Human Services.

- MDHHS is working closely with the Genesee County Health Department to reach out to families testing with higher levels and help them reduce their exposure to lead sources.

- Information was gathered from tests administered citywide to 963 children and adults between October 1 and October 30. Eighteen people age 17 or younger had elevated blood lead levels. Six adults over the age 18 were identified with elevated blood lead levels.

- The testing and follow-up work is part of our action plan.

Dave Murray
Deputy Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

<image001.jpg>

From: Murray, David (GOV)
Sent: Thursday, December 03, 2015 1:05 PM
To: Baird, Richard (GOV); Hollins, Harvey (GOV); Mcbride, Bill (GOV); Walsh, John (GOV); Brownfield, Michael (GOV); Redford, James (GOV); Posthumus, Dick (GOV); Calley, Brian (GOV); Forstner, Nathaniel (GOV)
Subject: Flint water release today
Attachments: Flint EBL Data Press Release V9.docx; Comms Plan - Flint EBL Data Summary 12315.docx; Flint Blood Lead Level Summary Report Dec.pdf

Team,

DHHS is sending out this update on Flint blood lead testing this afternoon. Preliminary data indicates that 30 of 1,361 adults and children tested in Flint since October 1 had elevated blood lead levels, according to a report issued today by the Michigan Department of Health and Human Services.

We've worked with the folks there to make the release as reader friendly and people focused as possible, and also to show some historical context. The graph on the PDF is particularly effective, showing that levels were just as high in 2010.

Please share any concerns you may have.

Dave

STATE OF MICHIGAN

RICK SNYDER
GOVERNOR

DEPARTMENT OF HEALTH AND HUMAN SERVICES
LANSING

NICK LYON
DIRECTOR

FOR IMMEDIATE RELEASE
December 3, 2015

CONTACT: Jennifer Eisner
(517) 241-2112

MDHHS releases latest data outlining blood lead levels in Flint

Follow-up care, case management resources continue for families

LANSING, Mich. – Preliminary data indicates that 30 of 1,361 adults and children tested in Flint since October 1 had elevated blood lead levels, according to a report issued today by the Michigan Department of Health and Human Services.

This marks the first summary report on lead testing called for in the state's action plan related to health concerns about Flint's water infrastructure.

"Our goal is to help families reduce their exposure to lead sources," said Dr. Eden Wells, MDHHS chief medical executive. "We have made progress in testing and identifying those with elevated blood lead levels, and the department will continue to work closely with the Genesee County Health Department to reach these families. We will remain diligent in our ongoing outreach and education efforts."

Information comes from tests administered citywide to 1,361 children and adults since October 1. Tests showed that 21 of 969 children age 17 or younger and 9 of 392 adults over the age 18 were identified with elevated blood lead levels.

The report covers test results reported to MDHHS since the state action plan was put in place Oct. 2. It includes the number of tests and number of elevated blood lead levels greater than 5 micrograms per deciliter, and captures both capillary and venous blood tests that have been reported to MDHHS since the beginning of October. People who have had multiple tests are counted only once. Five micrograms per deciliter is the level that the Centers for Disease Control and Prevention considers elevated and triggers health care professional follow up with families.

The full report is posted online at www.michigan.gov/flintwater and will be updated as more data becomes available.

When reviewing historical trend data, the risk of lead exposure is highest during the third quarter of each year – July through September. Seasonal variation is the result of a number of factors including increased exposure to lead in dust and soil in the summer months.

In the third quarter of 2010, 8.3 percent of Flint children 6 and under showed elevated blood lead levels. The figure gradually decreased to 4.1 percent in the third quarter of 2013. During the same months in 2014, the figure increased to 7.5 percent and decreased to 6.4 percent in the third quarter of 2015.

– MORE –

Last month, MDHHS collaborated with the county health department and local partners to distribute educational resources and informational letters to Flint parents regarding lead testing. The state is providing funding for GCHD nurses to work with families when an elevated blood lead level has been detected. During these follow-up visits, nurses coordinate with environmental health investigators to meet with families in their homes to identify lead exposures, address questions and provide water filters. People can be exposed to lead from paint, soil, plumbing and other sources.

MDHHS continues to provide free water filters and replacement cartridges to Flint residents at four locations, including the MDHHS Flint offices and the Genesee County Community Action Resource Department. For a full list of locations and hours of distribution, visit www.michigan.gov/flintwater.

To help residents properly install water filters, and to demonstrate how to replace the original when it expires, MDHHS has created an instructional video on its YouTube channel. For updates, visit www.michigan.gov/flintwater.

# # #

Flint EBL Data Summary

Communications Plan

Purpose

To release elevated blood lead level data for the city of Flint and communicate the summary to our partners in the community as well as local and state media. The report is intended to inform residents about blood lead level testing efforts in Flint and provide preliminary cumulative numbers on an ongoing basis.

Communications Timeline – December 3, 2015

11 a.m.

- Send final release and summary report to Governor's office, Michigan Department of Environmental Quality

1:30 p.m.

- Send final embargoed release and summary report to:
  - Genesee County Health Department – Geralyn Lasher
  - Dr. Mona Hannah-Attisha – Geralyn Lasher
  - Task Force Members – Geralyn Lasher
  - City of Flint Mayor's Office – Geralyn Lasher
  - Congress and legislature – Elizabeth Hertel

2 p.m.

- Issue press release and summary report
- Post press release and summary report to MDHHS website newsroom and Flint Water website, www.michigan.gov/flintwater

3 p.m.

- Pitched media interviews with Dr. Eden Wells:
  - Ron Fonger, MLive
  - Kristi Tanner, Detroit Free Press
  - Robin Erb, Detroit Free Press
  - Steve Carmody, Michigan Radio

MDHHS Contacts – Office Number 517-241-2112

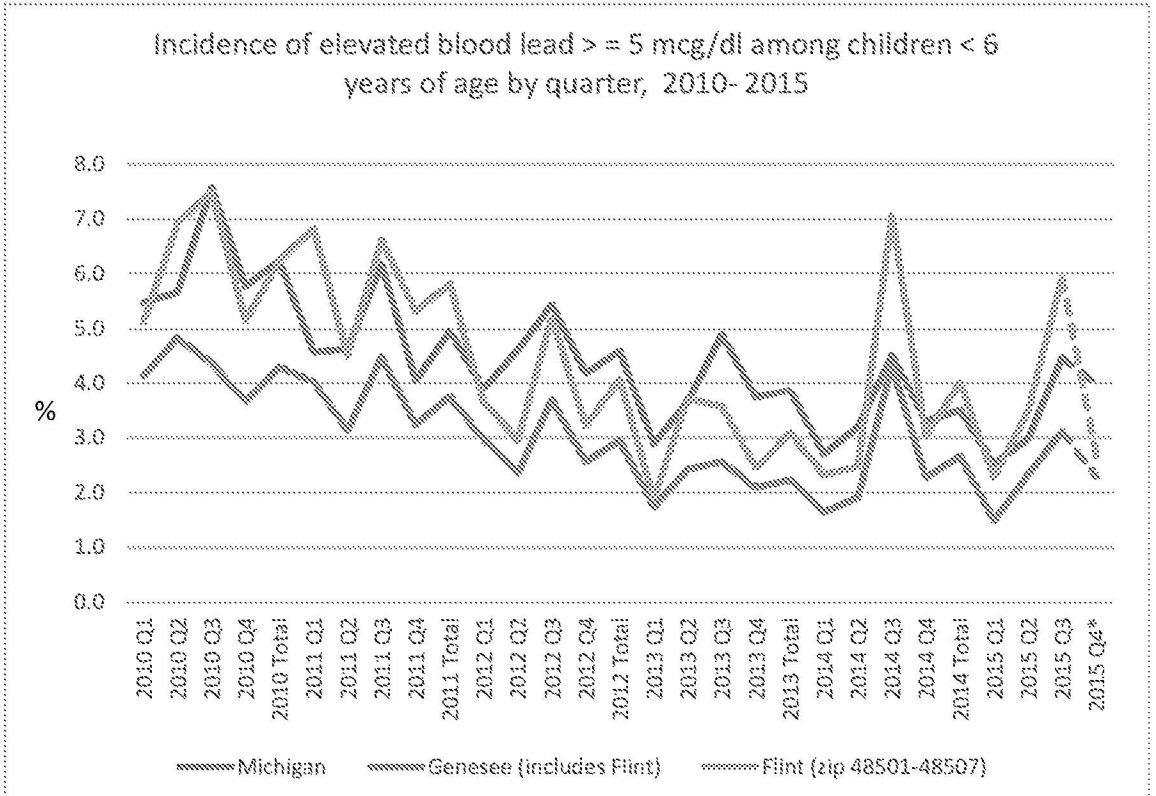
- Geralyn Lasher, cell – [redacted]
- Angela Minicuci, cell – [redacted]
- Jennifer Eisner, cell – [redacted]

Michigan Department of Health and Human Services (MDHHS)
Blood Lead Level Test Results for Flint Zip Codes 48501-48507
Genesee County, and the State of Michigan
Summary as of November 13, 2015

Executive Summary

This report is generated by MDHHS to track Blood Lead Level test results in Flint, Michigan.

- Counts on this report include both capillary and venous blood tests. People who have had multiple tests are counted only once per year.
- Since 10/1/2015, an additional 1,361 people have been tested in Flint.
- Continued testing efforts by Genesee County Health Department, MDHHS and local medical personnel have identified 21 children with blood lead levels greater than or equal to 5µg/dL (micrograms per deciliter) since 10/1/2015.
- Three percent of the children younger than 6 years old tested since 10/1/2015 have had blood lead levels greater than or equal to 5µg/dL.
- Additional testing is ongoing. Counts will vary as new results are added.



Deduplicated by year, retains test during the time period.
*Data for Q4 2015 are incomplete

** Data for Quarter 4 of 2015 are incomplete and subject to change*

	Children younger than 6 Years Old			Children 6 to 17 Years Old		
	Michigan	Genesee County	Flint 48501-48507	Michigan	Genesee County	Flint 48501-48507
Total tested for lead 1/1/2010 to 12/31/2010:	152,608	6,932	3,560	17,963	867	463
Number of test results ≥5µg/dL 1/1/2010 to 12/31/10:	9,509	298	222	907	25	20
Total tested for lead from 1/1/2011 to 12/31/2011:	149,420	6,667	3,093	15,725	1,038	544
Number of test results ≥5µg/dL 1/1/2011 to 12/31/11:	7,392	250	180	651	20	15
Total tested for lead 1/1/2012 to 12/31/2012:	146,142	7,008	3,112	15,460	1,386	630
Number of test results ≥5µg/dL 1/1/2012 to 12/31/12:	6,704	206	127	478	17	12
Total tested for lead 1/1/2013 to 12/31/2013:	145,813	6,986	3,077	13,897	1,241	566
Number of test results ≥5µg/dL 1/1/2013 to 12/31/13:	5,647	156	95	342	9	4
Total tested for lead 1/1/2014 to 12/31/2014:	141,355	6,690	3,045	12,936	913	428
Number of test results ≥5µg/dL 1/1/2014 to 12/31/14:	4,948	178	122	386	6	5
Total tested for lead 1/1/2015 to 11/13/2015:	120,699	5,778	2,704	10,841	1,197	765
Number of test results ≥5µg/dL 1/1/2015 to 11/13/2015:	4,200	149	101	309	10	8
Total tested for lead 10/1/2015 to 11/13/2015:	14,593	957	560	1,412	502	409
Number of test results ≥5µg/dL 10/1/2015 to 11/13/2015:	583	22	15	38	6	6

** Data for Quarter 4 of 2015 are incomplete and subject to change*

	Adults 18 Years and Older			Total Number of People of All Ages Tested		
	Michigan	Genesee County	Flint 48501-48507	Michigan	Genesee County	Flint 48501-48507
Total tested for lead 1/1/2010 to 12/31/2010:	13,853	602	195	184,424	8,401	4,218
Number of test results ≥5µg/dL 1/1/2010 to 12/31/10:	1,462	42	18	11,878	365	260
Total tested for lead 1/1/2011 to 12/31/2011:	13,259	542	139	178,404	8,247	2,726
Number of test results ≥5µg/dL 1/1/2011 to 12/31/11:	1,369	44	16	9,412	314	211
Total tested for lead 1/1/2012 to 12/31/2012:	13,059	556	155	174,661	8,950	3,907
Number of test results ≥5µg/dL 1/1/2012 to 12/31/12:	1,415	33	11	8,597	256	150
Total tested for lead 1/1/2013 to 12/31/2013:	12,199	498	136	171,909	8,725	3,779
Number of test results ≥5µg/dL 1/1/2013 to 12/31/13:	1,499	54	16	7,488	219	115
Total tested for lead 1/1/2014 to 12/31/2014:	12,684	441	112	166,975	8,044	3,585
Number of test results ≥5µg/dL 1/1/2014 to 12/31/14:	1,422	44	12	6,756	228	139
Total tested for lead 1/1/2015 to 11/13/2015:	11,685	860	526	143,225	7,835	3,995
Number of test results ≥5µg/dL 1/1/2015 to 11/13/2015:	1,195	30	15	5,704	204	124
Total tested for lead 10/1/2015 to 11/13/2015:	1,615	483	392	17,620	1,942	1,361
Number of test results ≥5µg/dL 10/1/2015 to 11/13/2015:	160	11	9	781	44	30

** Data for Quarter 4 of 2015 are incomplete and subject to change*

From: Hall, Jean (GOV)
Sent: Wednesday, November 04, 2015 8:04 AM
To: Brownfield, Michael (GOV)
Subject: RE: DEQ Seeks Gov. Signature- Letter to EPA - Flint Safe Drinking Water POC - NEEDED BY Tues. 11.10.15

Good point. Thank you.

Jean Hall
Executive Assistant
Office of Strategic Policy
Executive Office of Governor Rick Snyder
Hallj16@michigan.gov
517-241-5493

From: Brownfield, Michael (GOV)
Sent: Wednesday, November 04, 2015 7:58 AM
To: Hall, Jean (GOV) <hallj16@michigan.gov>
Subject: RE: DEQ Seeks Gov. Signature- Letter to EPA - Flint Safe Drinking Water POC - NEEDED BY Tues. 11.10.15

Looks fine to me, but given the subject matter I think you probably want to get a sign off from someone who has been plugged into this issue (Beth or Jarrod, I guess.)

From: Hall, Jean (GOV)
Sent: Tuesday, November 03, 2015 4:44 PM
To: Muchmore, Dennis (GOV); Mcbride, Bill (GOV); Agen, Jarrod (GOV); Walsh, John (GOV)
Cc: Scott, Allison (GOV); Clement, Elizabeth (GOV); Khouri, Claire (GOV); Wurfel, Sara (GOV); Brown, Eric (GOV); Blackwell, Rob (GOV); Arwood, Cheri (GOV); Hansen, Rachel (GOV); Taylor, Nicole (GOV); Brownfield, Michael (GOV); Redford, James (GOV); Wisniewski, Wendy (GOV); Thomet, Ruth (GOV); Stoken, Laura (GOV); Kennedy, Jordan (GOV); Lukasik, Liz (GOV); Weber, Travis (GOV); Ayers, Angela (GOV)
Subject: DEQ Seeks Gov. Signature- Letter to EPA - Flint Safe Drinking Water POC - NEEDED BY Tues. 11.10.15

Hello All,

DEQ is seeking the Governor's signature on the attached letter to Dr. Susan Hedman, Regional Administrator, USEPA, Region 5. The letter designates Jim Sygo, Chief Deputy Director, MDEQ as the DEQ point person for the USEPA – Region 5 Flint Safe Drinking Water Task Force.

For your reference, DEQ provided the attached Transmittal Form , along with a copy of the October 21 Flint Drinking Water Action Plan Update which includes a summary about the conference call with USEPA and MDEQ where the USEPA requested this letter. The attachment also includes the USEPA's October 16 press release about the establishment of the Task Force (see yellow highlighted text in both attachments)

Your approval, input, and/or changes are needed by EOB by **Tues. 11.10.15.**

If you have any questions or need additional background information, please let me know.

Thank you.

Jean Hall
Executive Assistant
Office of Strategic Policy
Executive Office of Governor Rick Snyder
HallJ16@michigan.gov
517-241-5493

From: Murray, David (GOV)
Sent: Thursday, November 19, 2015 7:52 PM
To: Brownfield, Michael (GOV)
Subject: Re: Information about Flint blood lead level testing results release
Attachments: image001.jpg

Sent it to her separately.

Sent from my iPhone

On Nov 19, 2015, at 7:46 PM, Brownfield, Michael (GOV) <BrownfieldM2@michigan.gov> wrote:

> Hey Dave - Can you make sure Laura Stoken is on the distribution for talking points, etc., in case they get calls?
>
> Thanks!

From: Murray, David (GOV)
Sent: Thursday, November 19, 2015 7:09 PM
To: Snyder, Rick (GOV); Calley, Brian (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Redford, James (GOV); Posthumus, Dick (GOV); Hollins, Harvey (GOV); Baird, Richard (GOV); Agen, Jarrod (GOV); Wurfel, Sara (GOV); Forstner, Nathaniel (GOV); Scott, Allison (GOV); Walsh, John (GOV); Brownfield, Michael (GOV); Wisniewski, Wendy (GOV); Mcbride, Bill (GOV)
Subject: Information about Flint blood lead level testing results release

> Good evening Governor and team,
>
> We're working with the Department of Health and Human Services on its release of blood lead level testing results, with some continuing discussions about messaging and timing. I've attached the draft press release, an informational graphic and talking points.
>
> This is a challenging situation to be sure, but I think these results are fairly encouraging considering some of the heated rhetoric on this issue. We are discussing a "people first" approach to messaging, and perhaps issuing early next week rather than on at 9:30 a.m. on a Friday so it doesn't look like we are burying news.
>
> In a nutshell:
>
> ■ Blood lead level testing results released today revealed that 24 of 963 adults and children tested in Flint in October had elevated levels, according to the Michigan Department of Health and Human Services.

- MDHHS is working closely with the Genesee County Health Department to reach out to families testing with higher levels and help them reduce their exposure to lead sources.

- Information was gathered from tests administered citywide to 963 children and adults between October 1 and October 30. Eighteen people age 17 or younger had elevated blood lead levels. Six adults over the age 18 were identified with elevated blood lead levels.

- The testing and follow-up work is part of our action plan.

Dave Murray
Deputy Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

From: Murray, David (GOV)
Sent: Thursday, November 19, 2015 10:07 PM
To: Brownfield, Michael (GOV)
Subject: Re: Information about Flint blood lead level testing results release

We need to come up with a better system of getting her info, because what we're doing now clearly isn't working. She also needs to be a little less confrontational.

I'm working on building a better folder in the shared drive where we can throw things like points and backgrounders so everyone has access.

We'll get there.

Sent from my iPhone

On Nov 19, 2015, at 8:09 PM, Brownfield, Michael (GOV) <BrownfieldM2@michigan.gov> wrote:

> cool! thanks!
>
> ---
>
> **From:** Murray, David (GOV)
> **Sent:** Thursday, November 19, 2015 7:51 PM
> **To:** Brownfield, Michael (GOV)
> **Subject:** Re: Information about Flint blood lead level testing results release
>
> Sent it to her separately.
>
> Sent from my iPhone
>
> On Nov 19, 2015, at 7:46 PM, Brownfield, Michael (GOV) <BrownfieldM2@michigan.gov> wrote:
>
> > Hey Dave - Can you make sure Laura Stoken is on the distribution for talking points, etc., in case they get calls?
> >
> > Thanks!
> >
> > ---
> >
> > **From:** Murray, David (GOV)
> > **Sent:** Thursday, November 19, 2015 7:09 PM
> > **To:** Snyder, Rick (GOV); Calley, Brian (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Redford, James (GOV); Posthumus, Dick (GOV); Hollins, Harvey (GOV); Baird, Richard (GOV); Agen, Jarrod (GOV); Wurfel, Sara (GOV); Forstner, Nathaniel (GOV); Scott, Allison (GOV); Walsh, John (GOV); Brownfield, Michael (GOV); Wisniewski, Wendy (GOV); Mcbride, Bill (GOV)
> > **Subject:** Information about Flint blood lead level testing results release
> >
> > Good evening Governor and team,

We're working with the Department of Health and Human Services on its release of blood lead level testing results, with some continuing discussions about messaging and timing. I've attached the draft press release, an informational graphic and talking points.

This is a challenging situation to be sure, but I think these results are fairly encouraging considering some of the heated rhetoric on this issue. We are discussing a "people first" approach to messaging, and perhaps issuing early next week rather than on at 9:30 a.m. on a Friday so it doesn't look like we are burying news.

In a nutshell:

- Blood lead level testing results released today revealed that 24 of 963 adults and children tested in Flint in October had elevated levels, according to the Michigan Department of Health and Human Services.

- MDHHS is working closely with the Genesee County Health Department to reach out to families testing with higher levels and help them reduce their exposure to lead sources.

- Information was gathered from tests administered citywide to 963 children and adults between October 1 and October 30. Eighteen people age 17 or younger had elevated blood lead levels. Six adults over the age 18 were identified with elevated blood lead levels.

- The testing and follow-up work is part of our action plan.

Dave Murray
Deputy Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

<image001.jpg>

From: Brownfield, Michael (GOV)
Sent: Wednesday, November 04, 2015 7:58 AM
To: Hall, Jean (GOV)
Subject: RE: DEQ Seeks Gov. Signature- Letter to EPA - Flint Safe Drinking Water POC - NEEDED BY Tues. 11.10.15

Looks fine to me, but given the subject matter I think you probably want to get a sign off from someone who has been plugged into this issue (Beth or Jarrod, I guess.)

From: Hall, Jean (GOV)
Sent: Tuesday, November 03, 2015 4:44 PM
To: Muchmore, Dennis (GOV); Mcbride, Bill (GOV); Agen, Jarrod (GOV); Walsh, John (GOV)
Cc: Scott, Allison (GOV); Clement, Elizabeth (GOV); Khouri, Claire (GOV); Wurfel, Sara (GOV); Brown, Eric (GOV); Blackwell, Rob (GOV); Arwood, Cheri (GOV); Hansen, Rachel (GOV); Taylor, Nicole (GOV); Brownfield, Michael (GOV); Redford, James (GOV); Wisniewski, Wendy (GOV); Thomet, Ruth (GOV); Stoken, Laura (GOV); Kennedy, Jordan (GOV); Lukasik, Liz (GOV); Weber, Travis (GOV); Ayers, Angela (GOV)
Subject: DEQ Seeks Gov. Signature- Letter to EPA - Flint Safe Drinking Water POC - NEEDED BY Tues. 11.10.15

Hello All,

DEQ is seeking the Governor's signature on the attached letter to Dr. Susan Hedman, Regional Administrator, USEPA, Region 5. The letter designates Jim Sygo, Chief Deputy Director, MDEQ as the DEQ point person for the USEPA – Region 5 Flint Safe Drinking Water Task Force.

For your reference, DEQ provided the attached Transmittal Form , along with a copy of the October 21 Flint Drinking Water Action Plan Update which includes a summary about the conference call with USEPA and MDEQ where the USEPA requested this letter. The attachment also includes the USEPA's October 16 press release about the establishment of the Task Force (see yellow highlighted text in both attachments)

Your approval, input, and/or changes are needed by EOB by **Tues. 11.10.15.**

If you have any questions or need additional background information, please let me know.

Thank you.

Jean Hall
Executive Assistant
Office of Strategic Policy
Executive Office of Governor Rick Snyder
Hallj15@michigan.gov
517-241-5493

From: Brownfield, Michael (GOV)
Sent: Thursday, November 19, 2015 7:46 PM
To: Murray, David (GOV)
Subject: RE: Information about Flint blood lead level testing results release

Hey Dave - Can you make sure Laura Stoken is on the distribution for talking points, etc., in case they get calls?

Thanks!

From: Murray, David (GOV)
Sent: Thursday, November 19, 2015 7:09 PM
To: Snyder, Rick (GOV); Calley, Brian (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Redford, James (GOV); Posthumus, Dick (GOV); Hollins, Harvey (GOV); Baird, Richard (GOV); Agen, Jarrod (GOV); Wurfel, Sara (GOV); Forstner, Nathaniel (GOV); Scott, Allison (GOV); Walsh, John (GOV); Brownfield, Michael (GOV); Wisniewski, Wendy (GOV); Mcbride, Bill (GOV)
Subject: Information about Flint blood lead level testing results release

Good evening Governor and team,

We're working with the Department of Health and Human Services on its release of blood lead level testing results, with some continuing discussions about messaging and timing. I've attached the draft press release, an informational graphic and talking points.

This is a challenging situation to be sure, but I think these results are fairly encouraging considering some of the heated rhetoric on this issue. We are discussing a "people first" approach to messaging, and perhaps issuing early next week rather than on at 9:30 a.m. on a Friday so it doesn't look like we are burying news.

In a nutshell:

- Blood lead level testing results released today revealed that 24 of 963 adults and children tested in Flint in October had elevated levels, according to the Michigan Department of Health and Human Services.

- MDHHS is working closely with the Genesee County Health Department to reach out to families testing with higher levels and help them reduce their exposure to lead sources.

- Information was gathered from tests administered citywide to 963 children and adults between October 1 and October 30. Eighteen people age 17 or younger had elevated blood lead levels. Six adults over the age 18 were identified with elevated blood lead levels.

- The testing and follow-up work is part of our action plan.

Dave Murray
Deputy Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

From: Brownfield, Michael (GOV)
Sent: Thursday, November 19, 2015 8:10 PM
To: Murray, David (GOV)
Subject: RE: Information about Flint blood lead level testing results release

cool! thanks!

From: Murray, David (GOV)
Sent: Thursday, November 19, 2015 7:51 PM
To: Brownfield, Michael (GOV)
Subject: Re: Information about Flint blood lead level testing results release

Sent it to her separately.

Sent from my iPhone

On Nov 19, 2015, at 7:46 PM, Brownfield, Michael (GOV) <BrownfieldM2@michigan.gov> wrote:

> Hey Dave - Can you make sure Laura Stoken is on the distribution for talking points, etc., in case they get calls?
>
> Thanks!

From: Murray, David (GOV)
Sent: Thursday, November 19, 2015 7:09 PM
To: Snyder, Rick (GOV); Calley, Brian (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Redford, James (GOV); Posthumus, Dick (GOV); Hollins, Harvey (GOV); Baird, Richard (GOV); Agen, Jarrod (GOV); Wurfel, Sara (GOV); Forstner, Nathaniel (GOV); Scott, Allison (GOV); Walsh, John (GOV); Brownfield, Michael (GOV); Wisniewski, Wendy (GOV); Mcbride, Bill (GOV)
Subject: Information about Flint blood lead level testing results release

> Good evening Governor and team,
>
> We're working with the Department of Health and Human Services on its release of blood lead level testing results, with some continuing discussions about messaging and timing. I've attached the draft press release, an informational graphic and talking points.
>
> This is a challenging situation to be sure, but I think these results are fairly encouraging considering some of the heated rhetoric on this issue. We are discussing a "people first" approach to messaging, and perhaps issuing early next week rather than on at 9:30 a.m. on a Friday so it doesn't look like we are burying news.
>
> In a nutshell:

- Blood lead level testing results released today revealed that 24 of 963 adults and children tested in Flint in October had elevated levels, according to the Michigan Department of Health and Human Services.

- MDHHS is working closely with the Genesee County Health Department to reach out to families testing with higher levels and help them reduce their exposure to lead sources.

- Information was gathered from tests administered citywide to 963 children and adults between October 1 and October 30. Eighteen people age 17 or younger had elevated blood lead levels. Six adults over the age 18 were identified with elevated blood lead levels.

- The testing and follow-up work is part of our action plan.

Dave Murray
Deputy Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

From: Bedan, Morgan (GOV)
Sent: Thursday, October 01, 2015 5:52 PM
To: Dickinson, Sarah (GOV)
Subject: Re: Friday media briefings

Add link. Always better to do it that way

Sent from my iPhone

On Oct 1, 2015, at 5:50 PM, Dickinson, Sarah (GOV) <DickinsonS@michigan.gov> wrote:

> Just add in the link or should I pull the bio info and add to briefing
>
> ---
>
> **From:** Wurfel, Sara (GOV)
> **Sent:** Thursday, October 01, 2015 5:48 PM
> **To:** Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>
> **Subject:** RE: Friday media briefings
>
> If you could also add in this bio link for Dr. Wells – don't believe Governor has met her yet. New CME as of this spring.
>
> MDHHS Names Eden V. Wells, M.D., M.P.H. as Michigan's New Chief Medical Executive
> http://www.michigan.gov/som/0,4669,7-192-29942_34762-353542--,00.html
>
> ---
>
> **From:** Wurfel, Sara (GOV)
> **Sent:** Thursday, October 01, 2015 5:45 PM
> **To:** Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>
> **Cc:** Emmitt, Beth (GOV) <emmittb@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; Biehl, Laura (GOV) <BiehlL@michigan.gov>; Paciorek, Josh (GOV) <Paciorekj@michigan.gov>; Kennedy, Jordan (GOV) <KennedyJ4@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>
> **Subject:** RE: Friday media briefings
> **Importance:** High
>
> Here are the two media briefings for tomorrow. Holler if have any Qs or need anything else at all.
>
> ---
>
> **From:** Biehl, Laura (GOV)
> **Sent:** Thursday, October 01, 2015 5:23 PM
> **To:** Wurfel, Sara (GOV) <WurfelS@michigan.gov>
> **Subject:** Friday media briefings
> **Importance:** High
>
> **RDS/Dan Wyant/Nick Lyon/Dr. Eden Wells/JA/SW- LIVE conference call with media regarding Flint water comprehensive action plan**
>
> **DATE**: Friday, Oct. 2, 2015
>
> **Time:** 8:15-8:40 a.m. PST (11:15-11:40 AM EST)

Location: Via phone from San Fran

RDS to call: 832-225-5881,23453839#

- Call right at 8:15 a.m.; Call will be live immediately. SW will introduce you, the other participants and open it up for your opening remarks.
- Other participants will be Dan Wyant, DEQ Director; Nick Lyon, DHHS Director; and Dr. Eden Wells, MI's Chief Medical Executive
- SW will moderate and screen reporter questions.

Purpose: Media conference call to discuss Flint water comprehensive action plan

Possible Topics:
Flint water action plan
Lead in Flint water
Handling of Flint Water issue
Reconnecting Flint to Detroit water

Media invited:
Flint area media (print, TV and radio) – Flint Journal/Ron Fonger; WJRT TV 12, WNEM TV 5, WEYI TV 25, WFNT Radio
Associated Press – Ed White
Detroit News – Jim Lynch
Detroit Free Press – Nancy Kaffer, Kristi Tanner & Kathy Gray
Michigan Radio – Steve Carmody

Agenda:

11:15-11:16 AM	SW intro; sets parameters; introduces other participants; turns over to Gov for opening remarks
11:16-11:21 AM	Governor gives opening remarks; highlights the key steps in the action plan
11:22-11:37 AM	Governor opens up for Q&A, weaving in Departmental experts as necessary and needed
11:37-11:39 AM	Governor gives closing remarks
11:39 AM	SW wraps up call; reminds reporters of embargo, 1:30 p.m. press conference and how to get a hold of everyone

Recent Articles:
Freep: Legislators take action to fix Flint water supply-
http://www.freep.com/story/news/politics/2015/10/01/legislators-take-action-fix-flint-water-supply/73152540/
WDIV: Public health emergency declared due to lead in Flint water-
http://www.clickondetroit.com/news/public-health-emergency-declared-due-to-lead-in-flint-water/35601670
Mlive: Governor says fallout from Flint water switch wasn't fully understood-
http://www.mlive.com/news/flint/index.ssf/2015/09/snyder_says_he_helped_bring_wa.html
Freep: Snyder finally says lead in Flint water may be problem-
http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/30/time-gov-says-lead-flint-water-may-problem/73088666/
Mlive: Legislative Black Caucus urges state of emergency for Flint water-
http://www.mlive.com/news/flint/index.ssf/2015/09/michgans_black_causus_urges_go.html

Market: Statewide

Contact: Conference line: 832-225-5881,23453839#

RDS/JA – LIVE Radio interview with Frank Beckmann on WJR Radio

Date: Friday, Oct. 2, 2015

Time: 8:45-8:55 a.m. PST

Location: Via phone

RDS to call: 313-875-4480

Purpose: To discuss priorities and key issues you are working on in 2015.

Possible Topics:

- Roads
- DPS reform plans
- Focus/priorities for remainder of the year
- Flint Water
- New Supreme Court Justice
- BLM Ambassador Trip to California
- Detroit homecoming
- Amazon and Lear investments this week
- China President visits/trade mission
- Rising Tide initiative w/ TED

Recent articles:

Freep: Snyder appoints Joan Larsen to Supreme Court- http://www.lansingstatejournal.com/story/news/politics/2015/09/30/u-m-attorney-headed-michigan-supreme-court/73083044/

AP: Michigan in early talks on taking more Syria, Middle East refugees, Snyder says- http://www.crainsdetroit.com/article/20150929/NEWS01/150929798/michigan-in-early-talks-on-taking-more-syria-middle-east-refugees

WILX: Governor Snyder Says Road Talks Going Well- http://www.wilx.com/home/headlines/Governor-Snyder-Says-Road-Talks-Going-Well-330164301.html

AP: Snyder acknowledges some mistakes in tapping Flint River- http://www.elkharttruth.com/news/michigan/2015/09/30/Snyder-acknowledges-some-mistakes-in-tapping-Flint-River.html

Note:

- Frank Beckmann will be broadcasting remotely from northern Michigan this day. Congressman John Moolenaar will be the guest immediately before the Governor.

Last interview: 5/28/15 at Mackinac

Market: Southeast Michigan- online at wjr.com

Contact: Studio: 313-875-4480; Back-up Producer Terri Leib cell: [redacted]

To: Bedan, Morgan (GOV)
Subject: RE: Friday media briefings

Hiiiiii add the link to the briefing though or in the appointment

---

From: Bedan, Morgan (GOV)
Sent: Thursday, October 01, 2015 5:52 PM
To: Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>
Subject: Re: Friday media briefings

Add link. Always better to do it that way

Sent from my iPhone

On Oct 1, 2015, at 5:50 PM, Dickinson, Sarah (GOV) <DickinsonS@michigan.gov> wrote:

> Just add in the link or should I pull the bio info and add to briefing
>
> ---
>
> **From:** Wurfel, Sara (GOV)
> **Sent:** Thursday, October 01, 2015 5:48 PM
> **To:** Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>
> **Subject:** RE: Friday media briefings
>
> If you could also add in this bio link for Dr. Wells – don't believe Governor has met her yet. New CME as of this spring.
>
> MDHHS Names Eden V. Wells, M.D., M.P.H. as Michigan's New Chief Medical Executive
> http://www.michigan.gov/som/0,4669,7-192-29942_34762-353542--,00.html
>
> ---
>
> **From:** Wurfel, Sara (GOV)
> **Sent:** Thursday, October 01, 2015 5:45 PM
> **To:** Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>
> **Cc:** Emmitt, Beth (GOV) <emmittb@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; Biehl, Laura (GOV) <BiehlL@michigan.gov>; Paciorek, Josh (GOV) <Paciorekj@michigan.gov>; Kennedy, Jordan (GOV) <KennedyJ4@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>
> **Subject:** RE: Friday media briefings
> **Importance:** High
>
> Here are the two media briefings for tomorrow. Holler if have any Qs or need anything else at all.
>
> ---
>
> **From:** Biehl, Laura (GOV)
> **Sent:** Thursday, October 01, 2015 5:23 PM
> **To:** Wurfel, Sara (GOV) <Wurfels@michigan.gov>
> **Subject:** Friday media briefings
> **Importance:** High
>
> **RDS/Dan Wyant/Nick Lyon/Dr. Eden Wells/JA/SW- LIVE conference call with media regarding Flint water comprehensive action plan**

DATE: Friday, Oct. 2, 2015

Time: 8:15-8:40 a.m. PST (11:15-11:40 AM EST)

Location: Via phone from San Fran

RDS to call: 832-225-5881,23453839#

- Call right at 8:15 a.m.; Call will be live immediately. SW will introduce you, the other participants and open it up for your opening remarks.
- Other participants will be Dan Wyant, DEQ Director; Nick Lyon, DHHS Director; and Dr. Eden Wells, MI's Chief Medical Executive
- SW will moderate and screen reporter questions.

Purpose: Media conference call to discuss Flint water comprehensive action plan

Possible Topics:
Flint water action plan
Lead in Flint water
Handling of Flint Water issue
Reconnecting Flint to Detroit water

Media invited:
Flint area media (print, TV and radio) – Flint Journal/Ron Fonger; WJRT TV 12, WNEM TV 5, WEYI TV 25, WFNT Radio
Associated Press – Ed White
Detroit News – Jim Lynch
Detroit Free Press – Nancy Kaffer, Kristi Tanner & Kathy Gray
Michigan Radio – Steve Carmody

Agenda:

11:15-11:16 AM	SW intro; sets parameters; introduces other participants; turns over to Gov for opening remarks
11:16-11:21 AM	Governor gives opening remarks; highlights the key steps in the action plan
11:22-11:37 AM	Governor opens up for Q&A, weaving in Departmental experts as necessary and needed
11:37-11:39 AM	Governor gives closing remarks
11:39 AM	SW wraps up call; reminds reporters of embargo, 1:30 p.m. press conference and how to get a hold of everyone

Recent Articles:
Freep: Legislators take action to fix Flint water supply-
http://www.freep.com/story/news/politics/2015/10/01/legislators-take-action-fix-flint-water-supply/73152540/
WDIV: Public health emergency declared due to lead in Flint water-
http://www.clickondetroit.com/news/public-health-emergency-declared-due-to-lead-in-flint-water/35601670
Mlive: Governor says fallout from Flint water switch wasn't fully understood-
http://www.mlive.com/news/flint/index.ssf/2015/09/snyder_says_he_helped_bring_wa.html
Freep: Snyder finally says lead in Flint water may be problem-
http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/30/time-gov-says-lead-flint-water-may-problem/73088666/
Mlive: Legislative Black Caucus urges state of emergency for Flint water-
http://www.mlive.com/news/flint/index.ssf/2015/09/michigans_black_causus_urges_go.html

Market: Statewide

Contact: Conference line: 832-225-5881,23453839#

RDS/JA – LIVE Radio interview with Frank Beckmann on WJR Radio

Date: Friday, Oct. 2, 2015

Time: 8:45-8:55 a.m. PST

Location: Via phone

RDS to call: 313-875-4480

Purpose: To discuss priorities and key issues you are working on in 2015.

Possible Topics:
- Roads
- DPS reform plans
- Focus/priorities for remainder of the year
- Flint Water
- New Supreme Court Justice
- BLM Ambassador Trip to California
- Detroit homecoming
- Amazon and Lear investments this week
- China President visits/trade mission
- Rising Tide initiative w/ TED

Recent articles:
Freep: Snyder appoints Joan Larsen to Supreme Court- http://www.lansingstatejournal.com/story/news/politics/2015/09/30/u-m-attorney-headed-michigan-supreme-court/73083044/
AP: Michigan in early talks on taking more Syria, Middle East refugees, Snyder says- http://www.crainsdetroit.com/article/20150929/NEWS01/150929798/michigan-in-early-talks-on-taking-more-syria-middle-east-refugees
WILX: Governor Snyder Says Road Talks Going Well- http://www.wilx.com/home/headlines/Governor-Snyder-Says-Road-Talks-Going-Well-330164301.html
AP: Snyder acknowledges some mistakes in tapping Flint River- http://www.elkharttruth.com/news/michigan/2015/09/30/Snyder-acknowledges-some-mistakes-in-tapping-Flint-River.html

Note:
- Frank Beckmann will be broadcasting remotely from northern Michigan this day. Congressman John Moolenaar will be the guest immediately before the Governor.

Last interview: 5/28/15 at Mackinac

Market: Southeast Michigan- online at wjr.com

Contact: Studio: 313-875-4480; Back-up Producer Terri Leib cell: [redacted]

From: Kennedy, Jordan (GOV)
Sent: Tuesday, October 06, 2015 11:38 AM
To: Dickinson, Sarah (GOV)
Subject: RE: Flint Water updates

We talked about it in our meeting today. We will be compiling and sending at the end of the day. I believe Sara is point for this.

Thanks,

Jordan Kennedy
Communications Representative
Executive Office of Governor Rick Snyder
Phone: 517.335.6397

From: Dickinson, Sarah (GOV)
Sent: Tuesday, October 06, 2015 8:44 AM
To: Kennedy, Jordan (GOV) <KennedyJ4@michigan.gov>
Subject: FW: Flint Water updates

Can you let me know if you hear that there will be stuff from comms for Flint Water updates every day? Want to be sure I'm not sending the briefing without comms input if they have input to provide. Thaaaanks ☺

From: Emmitt, Beth (GOV)
Sent: Tuesday, October 06, 2015 8:39 AM
To: Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>
Subject: FW: Flint Water updates

From: Wyant, Dan (DEQ)
Sent: Tuesday, October 06, 2015 8:30 AM
To: Scott, Allison (GOV) <scotta12@michigan.gov>
Cc: Emmitt, Beth (GOV) <emmittb@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: Re: Flint Water updates

Yes.

Sent from my iPhone

On Oct 6, 2015, at 8:23 AM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:

See below - DAN can your team assist with daily updates to GOV for his nightly briefing so he is not up to date. Your team would be responsible for collecting info from other depts involved etc

Let me know if you have questions or concerns

Thanks

Thanks

Sent from my iPhone

Begin forwarded message:

> **From:** "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>
> **Date:** October 6, 2015 at 8:20:24 AM EDT
> **To:** "Scott, Allison (GOV)" <scotta12@michigan.gov>
> **Cc:** "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>
> **Subject: Re: Flint Water updates**
>
> Update from Dan in briefing. Comms to also send update for briefing on stories or announcements upcoming. But Dan will have most accurate testing and analysis details to report.
>
> > On Oct 6, 2015, at 8:14 AM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:
> >
> > What is most effective accurate rout? Dan provided update for briefing each day or does Comms shop speak to DEQ Comms and provide?
> >
> > Sent from my iPhone
> >
> > > On Oct 6, 2015, at 8:05 AM, Snyder, Rick (GOV) [redacted] wrote:
> > >
> > > We need a better update system re Flint Water.
> > >
> > > I saw in the press this am that DHHS announced yesterday that water filters would start being given out today. This should have come internally with more detail. I had press questions last night.

Overall, we should have a daily report on Flint until our recommendations are fully implemented.

For example:

1. What are the water test results from the public schools?

2. How many free test have been requested? How many have been done? How many remain and how long have they been waiting? What are the results - no lead, lead consistent with history, higher levels?

3. How many filters have been distributed? How many unfulfilled requests?

4. New blood test results? Especially in the two zip codes.

5. Analysis of tech advisory group

6. Analysis of the GLWA vs. Flint River vs. KWA.

Thanks

Rick

Sent from my iPad

From: Scott, Allison (GOV)
Sent: Wednesday, October 07, 2015 7:19 PM
To: Dickinson, Sarah (GOV); Snyder, Rick (GOV); Emmitt, Beth (GOV)
Subject: Fwd: Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: City of Flint Water Funding Solution.pdf; ATT00001.htm; FLINT SCHOOL TESTING RESULTS.DOCX; ATT00002.htm; Drinking Water Regulations for Monitoring of Lead in Schools and Child C....doc; ATT00003.htm; Response to Corrosion Control Questions.docx; ATT00004.htm; Fwd: TAC Meeting Highlights; ATT00005.htm; CC Meeting Minutes 3-25-2013 (1).doc; ATT00006.htm; Flint.pdf; ATT00007.htm; KWA Contract (amended) 130165.2.pdf; ATT00008.htm

We will put in pdf for you

Sent from my iPhone

Begin forwarded message:

From: "Wyant, Dan (DEQ)" <WyantD@michigan.gov>
Date: October 7, 2015 at 7:09:27 PM EDT
To: "Scott, Allison (GOV)" <scotta12@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Dickinson, Sarah (GOV)" <DickinsonS@michigan.gov>, "Emmitt, Beth (GOV)" <emmittb@michigan.gov>
Subject: Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

Governor Snyder,

I wanted to provide you with the attached documents to address a number of the questions that you are asking today. A full briefing for the press conference, including press release, talking points, run of show, and frequently asked questions, will be provided by your team. Included in this e-mail are the following attachments:

1. Flint Drinking Water FY 2016 supplemental budget request summary
2. Summary of the Flint schools water testing results and our response to the results
3. Drinking water regulations for monitoring lead in schools and child care centers
4. Response to the questions on corrosion control
5. Summary of today's Safe Drinking Water Technical Advisory Committee meeting
6. Flint City Council Minutes from March 25, 2013; the Resolution to Purchase Capacity from Karegnondi Water Authority; and the Amended Contract

Other Updates

Mayor Duggan and Sue McCormick of DWSD were contacted, briefed, and are supporting tomorrow's announcement. Both have indicated they would provide positive comments supporting the decision.

City of Flint Water - Funding Solution
State of Michigan Commitment

Agency	GF/GP	Gross	Comments
Filters:			
Health & Human Services	$1,016,000	$1,016,000	AY15 work project
Health & Human Services	$0	$1,000,000	DEQ State Restricted Settlement Funds provided to HHS Emergency Services local office (FY16 appropriation).
Subtotal Filters:	**$1,016,000**	**$2,016,000**	
Reconnect to DSW:			**Reconnection costs ~$1.3m/month x 9 mos. to be shared by state & Flint**
Environmental Quality	$5,000,000	$6,000,000	DEQ State Restricted Settlement Fund of $1m; balance GF/GP
Subtotal Reconnect:	**$5,000,000**	**$6,000,000**	
Testing Costs:			
Environmental Quality	$1,000,000	$1,000,000	Additional tests at state lab; cost per sample: $26
Subtotal Testing:	**$1,000,000**	**$1,000,000**	
Additional Agency Support:			
LARA	$0	$200,000	Support for plumbing inspectors to do schools (public and parochial) and health facilities (hospitals, Long Term Care, etc.).
MSHDA	$0	$249,900	
Health & Human Services	$600,000	$600,000	Follow-up on children with elevated blood levels
Environmental Quality	$300,000	$300,000	Home and school inspections.
Subtotal Additional Support:	**$900,000**	**$1,349,900**	
ALL TOTAL	**$7,916,000**	**$10,365,900**	

FLINT SCHOOL TESTING RESULTS:

WHAT DID WE FIND?

1) The results of the initial screening conducted over the course of the last week are consistent with the last round of community lead and copper testing.

2) There were a total of 37 samples taken from 13 schools. Of those 37 samples, 4 exceeded the 15 ppb action level. There were 3 schools that had samples exceeding the action level: Eisenhower Elementary (which had two samples exceeding 15 ppb). Brownell STEM Academy and Freeman Elementary each had one sample exceeding 15 PPB. The sample from Freeman Academy was significantly higher than the other samples at 101 PPB.

3) Looking at the data from a health based perspective, the data clearly demonstrates that more detailed sampling needs to occur so that the various sources of lead contamination contained within each respective school's plumbing can be identified and addressed.

WHAT DOES THE DATA MEAN?

1) The data underscores the need for a complete and thorough evaluation of the plumbing system within each school.

2) We have developed a protocol for evaluating the plumbing systems and we will be working with schools to implement these protocols and to assist them in determining a corrective action plan to address this issue.

3) The State is identifying staff within DEQ, DHHS, LARA and Local County Health Departments to assist schools in conducting evaluations of their plumbing systems.

WHAT IS YOUR PROTOCOL?

1) DEQ's protocols are based on similar work done in Michigan and in other States.

2) Multiple samples from each tap used for cooking or drinking water will be collected at prescribed intervals to identify levels of lead and its likely source.

3) Once an evaluation is complete, we will be able to assist each School in developing a comprehensive plan to address issues on a site specific basis.

HOW DO SCHOOLS RESPOND?

1) Schools should continue protective measures that are currently in place until a complete study can be conducted at each school. This includes the continued use of bottled water for consumption purposes.

2) We will be reaching out to schools to schedule a complete evaluation, assessment and sampling, of their plumbing systems.

Drinking Water Regulations for Monitoring of Lead in Schools and Child Care Centers

There is no federal or Michigan law requiring sampling of drinking water in schools that receive water from other public water systems, although schools that have their own water supply are subject to regulation and sampling as non-community public water systems. Schools served by a public water system may be included as a sampling site (i.e., tap) for a public water system's lead and copper monitoring program if there are insufficient single-family homes that qualify. There are no federal requirements for more extensive testing.

The 1986 Amendments to the Safe Drinking Water Act (SDWA) required EPA to develop regulations to control for lead in drinking water. The Lead and Copper Rule (LCR), issued in 1991, is focused on controlling corrosion within the distribution system that delivers water to customers. The 1986 SDWA Amendments also required that only lead-free materials be used in new plumbing and in plumbing repairs.

In 1988, the SDWA was further amended by the Lead Contamination Control Act (LCCA), to reduce the exposure of lead to children in schools and child care facilities. The LCCA prohibited the sale of any drinking water cooler that is not lead-free and required that:
• the EPA identify each brand and model of drinking water cooler, indicating which are lead free and which have a lead-lined tank and distribute the list to states (SDWA Sec. 1463),
• the Consumer Product Safety Commission order that manufacturers and importers of all drinking water coolers identified as having a lead-lined tank repair, replace, or recall and provide a refund for such coolers (SDWA Sec. 1462),
• the EPA publish a guidance document and testing protocol to assist states in determining the source and degree of lead contamination in school drinking water (SDWA Sec. 1464), and
• states establish programs to assist schools and child care facilities to test for and remedy lead contamination problems, with public availability of results of such testing (SDWA Sec. 1464(d)).

As a result of a 1996 court decision, States are not required to establish testing programs. In its decision, the Fifth Circuit held that provisions in section 1464(d) were unconstitutional under the Tenth Amendment to the U.S. Constitution because they directly compelled the state to enact and enforce a federal regulatory program and provided no options for the State to decline the program. The decision did not, however, restrict states from developing and carrying out their own programs to assist schools.

In 1989 and subsequent years, EPA released guidance and information to inform states and school systems how to test for and reduce the risk of lead exposure in school drinking water. EPA's guidance provides a protocol for testing water in schools and recommends that schools take action at fixtures where the lead concentration exceeds 20 ppb. This concentration differs from the 15 ppb action level that public water systems are required to follow. ***The 20 ppb action level is based on a smaller sample collection volume of 250 milliliters (ml) and is designed to pinpoint specific fountains and outlets that require attention.***

In 1990, Michigan did provide schools and licensed child care centers with information to assist in testing and remedying potential lead contamination of their drinking water as required by the Lead Contamination Control Act of 1988. This information included a sampling protocol and guidance on flushing their system to minimize lead exposure.

In 2004, EPA surveyed states to determine what additional programs may exist to control exposure to lead in drinking water at schools and child care centers. Forty-nine states, Puerto Rico, the District of Columbia and the Navajo Nation responded. Only 16 respondents indicated they have or will conduct special sampling or studies to target lead exposure at schools and child care centers. Michigan has not included any additional sampling programs or studies. However, some local agencies have conducted voluntary programs. For example, the W.K. Kellogg Foundation funded a program implemented by the Calhoun County Health Department that sampled schools in Battle Creek. In Michigan's response to this EPA survey, we included a recommendation for EPA to allow schools to be considered as a primary LCR monitoring site so that more information about lead levels in schools would become available. However, no changes in sampling criteria have occurred to date.

In 2005, a Memorandum of Understanding was signed between the EPA, the Department of Education, the Centers for Disease Control and Prevention (CDC), the American Water Works Association, the Association of Metropolitan Water Agencies, the Association of State Drinking Water Administrators, the National Association of Water Companies and the National Rural Water Association to facilitate actions that reduce children's exposure to lead from drinking water at schools and child care facilities.

Across the country and in Michigan, most schools and child care facilities receive water from other community water systems. However, those schools that have their own source of drinking water are considered non-transient non-community water systems and are subject to the LCR. In Michigan, there are 755 such schools and child care centers that must monitor for lead to demonstrate compliance.

Response to Corrosion Control Questions

- Lime Softening can affect the pH in water
- The pH of the water is one physical characteristic that can affect the leaching of lead from pipes into the water
- As per the requirements in the Lead/Copper rule the Flint Water system was evaluated for two consecutive monitoring periods and the results of the monitoring demonstrated that further action was necessary.
- The DEQ promptly notified the Flint water system of the need for additional measures and the city of Flint promptly began putting together an action plan to address this need.

From: Sygo, Jim (DEQ)
Sent: Wednesday, October 07, 2015 6:00 PM
Subject: Fwd: TAC Meeting Highlights

Summary of advisory committee meeting

Sent from my iPhone

Begin forwarded message:

> **From:** "Prysby, Mike (DEQ)" <PRYSBYM@michigan.gov>
> **Date:** October 7, 2015 at 4:56:44 PM EDT
> **To:** "Sygo, Jim (DEQ)" <SygoJ@michigan.gov>
> **Subject: TAC Meeting Highlights**
>
> Below is a summary of the Flint TAC meeting to obtain the committee's endorsement to switch back to Detroit water.
> 1. The TAC endorses the switch back to the DWSD
> 2. Marc Edwards of VA Tech supports the switchover to DWSD with conclusion that Flint River water with corrosion control will still be 4 times more corrosive
> than water from DWSD after 5 weeks of treatment.
> 3. Genesee County states two weeks to prepare pipeline for re-use (flush, disinfect, sample, etc)
> 4. Supplemental corrosion control still needed with DWSD water and ACT 399 submittal can be made in approx one week.
> 5. No pros were brought to the table for staying on the Flint River.
>
> Sent from my iPhone

City of Flint, Michigan

Third Floor, City Hall
1101 S. Saginaw Street
Flint, Michigan 48502
www.cityofflint.com

Meeting Minutes - Draft

Monday, March 25, 2013

5:33 PM

Agenda amended to include Board of Hospital Managers appointments

Council Chambers

CITY COUNCIL

Scott Kincaid, President, Ward 9
Bryant W. Nolden, Vice President, Ward 3

Claudia Croom, Ward 1 ***Jacqueline Poplar, Ward 2***
Joshua M. Freeman, Ward 4 ***Bernard Lawler, Ward 5***
Sheldon A. Neeley, Ward 6 ***Dale K. Weighill, Ward 7***
Michael J. Sarginson, Ward 8

Inez M. Brown, City Clerk

CALL TO ORDER

President Scott Kincaid called the meeting to order at 5:33 p.m.

ROLL CALL

Councilperson Michael Sarginson arrived at 5:37 p.m.

Present: Councilperson: Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, Kincaid, Councilperson Weighill and Councilperson Croom

PLEDGE OF ALLEGIANCE

Councilperson Sheldon Neeley led the Pledge of Allegiance.

SPECIAL ORDER

130217 Special Order/Information & Discussion/Karegnondi Water Authority (KWA)

A Special Order as requested by Council President Scott Kincaid to continue discussion and review of information on the Karegnondi Water Authority (KWA).

Presented

PETITIONS AND UNOFFICIAL COMMUNICATIONS

130193 Change to Digital/All Limited Basic Service Channels/Comcast Cablevision

Communication dated March 6, 2013, from Gerald W. Smith, Government Affairs Manager, Comcast, to Flint City Clerk, re: On or shortly after April 9, 2013, Comcast will convert all Limited Basic service channels -- including Public, Government and Educational Access (PEG) channels to digital format, and will provide customers with digital equipment.

This matter was Placed on File. The motion carried.

130199 Certified Letter/Loyst Fletcher, Jr. & Associates

Communication received from Loyst Fletcher, Jr. to Chief Legal Officer, re: He questions the tax-exempt status of Word of Life Christian Church, which received a tax bill from the city.

This matter was Placed on File. The motion carried.

130200 Local Approval Notice/Michigan Liquor Control Commission (MLCC)/Time Square/Ward 3

Local Approval Notice dated March 14, 2013, from MLCC to Flint City Clerk, re: The MLCC has received a request to transfer all stock in 2012 Class C license with Sunday Sales Permit (PM) and Dance Permit, located at 4522 N. Saginaw,

Flint, Michigan, 48505, Genesee County, held by the estate of Myra Seals, Inc., 1028 Cora Dr., Flint, MI 48532, to Carisa Mays Bishop, Personal Representative. [NOTE: Approval order enclosed.]

This matter was Placed on File. The motion carried.

130202 Local Approval Notice/Michigan Liquor Control Commission (MLCC)/D & R Market, Inc./Ward 6

Local Approval Notice dated March 6, 2013, and received March 15, 2013, from MLCC to Flint City Clerk, re: The MLCC has received an application from 2 AAR, LLC, requesting to Transfer Ownership of a Specially Designated Distributor (SDD) and Specially Designated Merchant (SDM) licensed business with Sunday Sales permit (PM) and Direct Connection-I to D & R Market, Inc., located at 1402-1404 N. Chevrolet, Flint, Michigan, 48504, Genesee County, from 2 AAR, LLC, 3079 Shattuck Arms Blvd., Apt. 5, Saginaw, MI 48603. [NOTE: The application was cancelled pursuant to a request from an attorney.]

This matter was Placed on File. The motion carried.

130204 Changes/Cable Channel Lineup/Comcast Cablevision

Communication dated March 18, 2013, from Gerald W. Smith, Government Affairs Manager, Comcast, to Flint City Clerk, re: effective on or about May 22, 2013, Fox Business Network/Fox Business Network HD (ch. 06/243) will from the Digital Preferred Service to the Digital Starter Service.

This matter was Placed on File. The motion carried.

130205 Media Alert/Flint Public Art Project/Announcement of Design Winner

Media Alert received via e-mail on March 19, 2013, from the American Institute of Architects (AIA), re: The Flint Public Art Project and the Flint Chapter of the AIA will announce the winner of the $25,000.00 grand prize in the inaugural Flat Lot competition to design and build a temporary summer pavilion on Flint's central downtown parking lot at 9:30 a.m. Thursday, March 21, 2013, at the John Gazall & Associates, Mott Building, 503 S. Saginaw Street, Flint.

This matter was Placed on File. The motion carried.

130207 Damage Claims

MAYFIELD, LINDA, 2518 Walter Street, Flint, MI (WARD 2)
LANE, WILLIE C., 3130 Concord Street, Flint, MI (WARD 6)

This matter was Placed on File. The motion carried.

COMMUNICATIONS FROM CITY OFFICIALS

130194 Press Release/City of Flint/Hiring of New Police Officers/Recruitment of Others

Press Release dated March 11, 2013, from Jason Lorenz, City of Flint Public

Information Officer, re: The City of Flint has seven new police officers on the job from the public safety millage passed last November by voters. The city's next step is to hold a recruitment drive by working with a local college, which will set up a Police Academy when the city has gathered sufficient interest from its efforts.

This matter was Placed on File. The motion carried.

130195 Press Release/City of Flint/Sunday Sales of Alcohol Before Noon Not Permitted on St. Patrick's Day

Press Release dated March 12, 2013, from Jason Lorenz, City of Flint Public Information Officer, re: The City of Flint will not be able to permit Sunday alcohol sales before noon this Sunday, March 17, St. Patrick's Day. While the city adopted a resolution to allow a one-time exception to the Sunday morning alcohol ban, the Michigan Liquor Control Commission has taken the position that the city cannot create a one-day exemption.

This matter was Placed on File. The motion carried.

130196 Flint City Council/Public Notice/Special City Council Meeting/March 18, 2013

Public Notice posted March 14, 2013, re: The Flint City Council will hold a Special City Council Meeting, followed by a Finance Committee Meeting, at 5:30 p.m. Monday, March 18, 2013, in the City Council Chambers, 3rd Floor, City Hall, to consider a contract with the Karegnondi Water Authority (KWA).

This matter was Placed on File. The motion carried.

130201 Emergency Financial Manager (EFM) Order #10/Grant Applications

Order #10 issued by Emergency Financial Manager on March 15, 2013, "Grant Applications," re: "all city officials, department heads, division heads and employees shall adhere to ...requirements regarding the approval of any and all grant applications on behalf of the City of Flint or grant applications submitted by others which in any way involves the financial, programmatic or personnel support by the City of Flint." The five requirements, including the stipulation that only the Emergency Financial Manager or City Administrator are authorized to accept grants on behalf of the city, are included in the order.

This matter was Placed on File. The motion carried.

130203 Press Release/City of Flint/Flint Lifelines/Meeting Announcement

Press Release dated March 16, 2013, from Jason Lorenz, City of Flint Public Information Officer, re: Flint Lifelines, formerly CeaseFire Flint, will hold community meetings on the fourth Thursday of each month, beginning at 1 p.m. Thursday, March 28, 2013 at Flint Northwestern High School. The meetings are open to the public.

This matter was Placed on File. The motion carried.

130206 Flint City Council/Public Notice/Finance Committee Meeting/March 20, 2013

Public Notice posted March 19, 2013, re: The Flint City Council will hold a Finance Committee Meeting at 5:30 p.m. Wednesday, March 20, 2013, in the City Council Committee Room, 3rd Floor, City Hall.

This matter was Placed on File. The motion carried.

130208 Flint City Council/Public Notice/Special Affairs Committee Meeting/March 25, 2013

Public Notice posted March 22, 2013, re: The Flint City Council will hold a Special Affairs Committee Meeting at 5 p.m. Monday, March 25, 2013, in the City Council Committee Room, 3rd Floor, City Hall. A regular City Council meeting will immediately follow in the Council Chambers.

This matter was Placed on File. The motion carried.

130209 Traffic Engineering/Note for Bulletin/Street-Sidewalk-Lane Closures

Notes for Bulletin (3) dated February/March 2013, for street, sidewalk, or lane closures, re: (1) Harrison Street, Saginaw Street and Second Avenue (cable failure-March 11-March 20); (2) First Street, Harrison Street, Wallenberg, Kearsley, Crapo, Horrigan, and Harrison (St. Patrick's Day Pot O' Gold 4-Mil Run/Walk-March 17); and (3) Chevrolet Avenue (University Corner Grand Opening-March 22).

This matter was Placed on File. The motion carried.

Passed The Consent Agenda

A motion was made. The motion carried.

PUBLIC SPEAKERS

ROLL CALL

Councilperson Dale Weighill left at approximately 7 p.m.

Present: Councilperson: Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, Kincaid and Councilperson Croom

Absent: Councilperson: Councilperson Weighill

APPOINTMENTS

130169.1 Amendment/Reappointment/Zoning Board of Appeals/Christine Monk (Ward 6)

Amended resolution resolving that the Flint City Council recommends the reappointment of Christine Monk (821 Frank Street, Flint MI 48504 - Ward 6), to the Zoning Board of Appeals for a three-year term, commencing September

1, 2011, and expiring September 1, 2014. [By way of background, Ms. Monk's term on the Zoning Board of Appeals expired in September 2011, but she has continued since that time to serve.] [Resolution amended to fix typographical error in first paragraph of resolution from "Board of Review" to "Zoning Board of Appeals."]

Sponsors: Sheldon A. Neeley

A motion was made by Councilperson Neeley, seconded by Councilperson Freeman, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130211 Appointment/Zoning Board of Appeals/Chris Zuwala (Ward 4)

Resolution resolving that the Flint City Council recommends the appointment of Chris Zuwala (3510 Whittier Avenue, Flint MI 48506 - Ward 4) to the Zoning Board of Appeals for a three-year term, expiring September 1, 2013. [NOTE: By way of background, Gloria Kelly's term as the 4th Ward representative expired in September 2007, but she continued to serve until resigning in January 2013.]

Sponsors: Joshua M. Freeman

A motion was made by Councilperson Freeman, seconded by Councilperson Poplar, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130212 Reappointment/Zoning Board of Appeals/Birdie V. Brooks (Ward 5)

Resolution resolving that the Flint City Council recommends the reappointment of Birdie V. Brooks (1307 Columbia Lane, Flint MI 48503 - Ward 5), to the Zoning Board of Appeals for the remainder of a three-year term, expiring September 1, 2014. [By way of background, Ms. Brook's term on the Zoning Board of Appeals expired in September 2011, but she has continued since that time to serve.]

Sponsors: Bernard Lawler

A motion was made by Councilperson Lawler, seconded by Councilperson Neeley, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130213

Resolution resolving that the Flint City Council recommends the reappointment of Marcia Braden (984 Barney Avenue, Flint MI 48503 - Ward 8), to the Zoning Board of Appeals for the remainder of a three-year term, expiring September 1, 2014. [By way of background, Ms. Braden's term on the Zoning Board of Appeals expired in September 2011, but she has continued since that time to serve.]

Sponsors: Michael J. Sarginson

A motion was made by Councilperson Sarginson, seconded by Councilperson Freeman, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130214 Reappointment/Zoning Board of Appeals/David C. Veasley (Ward 9)

Resolution resolving that the Flint City Council recommends the reappointment of David C. Veasley (2618 Pinetree Drive, Flint MI 48507 - Ward 9), to the Zoning Board of Appeals for the remainder of a three-year term, expiring September 1, 2015. [By way of background, Mr. Veasley's term on the Zoning Board of Appeals expired in September 2009, but he has continued since that time to serve.]

Sponsors: Scott Kincaid

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130215 Appointment/Genesee County Land Bank Citizens' Advisory Council/Anthony Tucker (Ward 4)

Resolution resolving that the Flint City Council recommends the appointment of Anthony Tucker (2960 Henry Street, Flint MI 48506 - Ward 4) to the Genesee County Land Bank Citizens' Advisory Council for the remainder of a three-year term, expiring in January 2016. [NOTE: By way of background, Dan Anderson's term as the 4th Ward representative expired in January 2013.]

Sponsors: Joshua M. Freeman

A motion was made by Councilperson Freeman, seconded by Councilperson Poplar, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130218 Reappointment/Hurley Board of Hospital Managers/Philip W. Shaltz

Resolution resolving that the Flint City Council approves the reappointment of Philip W. Shaltz (14144 Moffet Drive, Fenton, MI 48430) to an additional five-year term on the (Hurley) Board of Hospital Managers, with such term to commence May 1, 2013, and expire April 30, 2018.

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130219 Appointment/Hurley Board of Hospital Managers/Delrico Loyd

Resolution resolving that the Flint City Council approves the appointment of Delrico Loyd (2641 Westwood Parkway, Flint, MI 48507) to a five-year term on the (Hurley) Board of Hospital Managers, with such term to commence May 1, 2013, and expire April 30, 2018. [By way of background, Carl E. Mason was appointed in June 2008; his term expires April 30, 2013.]

Approved

Substituted

A motion was made by Councilperson Neeley, seconded by Councilperson Lawler, that this matter be POSTPONED for March 27, 2013. The motion failed by the following vote:

Aye: 3 - Councilperson Lawler, Councilperson Neeley and Councilperson Sarginson

No: 5 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

Substituted

A motion was made by Vice President Nolden, seconded by Councilperson Freeman, that this matter be Approved. The motion carried by the following vote:

Aye: 5 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, President Kincaid and Councilperson Croom

No: 3 - Councilperson Lawler, Councilperson Neeley and Councilperson Sarginson

Absent: 1 - Councilperson Weighill

130220 Appointment/Hurley Board of Hospital Managers/Donna Poplar

Resolution resolving that the Flint City Council approves the appointment of Donna Poplar (5277 Kimberly Woods Circle, Flint, MI 48504) to a five-year term

on the (Hurley) Board of Hospital Managers, with such term to commence May 1, 2013, and expire April 30, 2018. [By way of background, Frances Gilcreast was appointed in August 2008; her term expires April 30, 2013.]

Approved

Substituted

A motion was made by Councilperson Lawler, seconded by Councilperson Neeley, that this matter be POSTPONED for March 26, 2013. The motion carried by the following vote:

Aye: 7 - Councilperson Poplar, Vice President Nolden, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

No: 1 - Councilperson Freeman

Absent: 1 - Councilperson Weighill

RESOLUTIONS

130165.1 Amended Resolution/Contract/City of Flint/Karegnondi Water Authority (KWA)

Amended resolution resolving that city officials are authorized to enter into a contract with Karegnondi Water Authority (KWA) to purchase fifteen (15) units of capacity, AND, resolving that the City Administrator is authorized to provide KWA information needed to administer the contract, and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract. [NOTE: For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one-time fee of $32,300. Additionally, the buyer shall pay to the KWA not less than $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount NOT-TO-EXCEED $355,300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00, the buyer has a right to cancel the contract. Over the next 25 years, it is expected that continuing with Detroit will cost the region $2.1 billion, compared to $1.9 billion with a pipeline.] [NOTE: Contract not included.] [NOTE: Resolution amended from 18 to 15 units of capacity.]

A motion was made by Councilperson Neeley, seconded by Councilperson Freeman, that this matter be Amended. The motion carried by the following vote:

Aye: 5 - Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley and Councilperson Sarginson

No: 3 - Councilperson Poplar, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130165.2 Amended Resolution/Contract/City of Flint/Karegnondi Water Authority (KWA)

Amended resolution resolving that city officials are authorized to enter into a contract with Karegnondi Water Authority (KWA) to purchase sixteen (16) units

of capacity, AND, resolving that the City Administrator is authorized to provide KWA information needed to administer the contract, and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract. [NOTE: For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one-time fee of $32,300. Additionally, the buyer shall pay to the KWA not less than $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount NOT-TO-EXCEED $355,300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00, the buyer has a right to cancel the contract. Over the next 25 years, it is expected that continuing with Detroit will cost the region $2.1 billion, compared to $1.9 billion with a pipeline.] [NOTE: Contract not included.] [NOTE: Resolution amended from 15 to 16 units of capacity.]

A motion was made by Councilperson Neeley, seconded by Councilperson Freeman, that this matter be Adopted. The motion carried by the following vote:

Aye: 7 - Councilperson Poplar, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

No: 1 - Vice President Nolden

Absent: 1 - Councilperson Weighill

130216 Approval/The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint

Resolution that the City of Flint hereby approves and The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint, attached hereto. [NOTE: The City of Flint created the DDA, in accordance with Public Act 197 of 1975, as amended, and approved The Rules Governing the DDA in 1977. Public Act 197 has been amended and revised at various times since then, which required the proposed changes.] [NOTE: The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint is attached.]

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Amended. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130216.1 Amended Resolution/Approval/The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint

Amended resolution that the City of Flint hereby approves and The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint, attached hereto. [NOTE: The City of Flint created the DDA, in accordance with Public Act 197 of 1975, as amended, and approved The Rules Governing the DDA in 1977. Public Act 197 has been

amended and revised at various times since then, which required the proposed changes.] [NOTE: The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint is attached.] [Resolution amended for changes to rules.]

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Adopted. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

RESOLUTIONS - MAY BE REFERRED FROM S.A.

130210 Resolution/City Council/Mayor Dayne Walling/Request for Appointment of Transition Advisory Board

Resolution resolving that Mayor Dayne Walling and the Flint City Council request and recommend to Gov. Rick Snyder that a receivership transition advisory board be appointed for the City of Flint under Public Act 436 no later than July 1, 2013. [NOTE: On December 1, 2011, Gov. Snyder appointed Michael K. Brown as Emergency Manager under Public Act 4 for the City of Flint, due in part to a consistent deficit in the general fund, the decline in pooled cash, budget issues and unfunded liabilities for post-employment benefits. Due to the suspension and subsequent repeal of Public Act 4, Gov. Snyder appointed Edward J. Kurtz as Emergency Financial Manager under Public Act 72 for the City of Flint, effective August 9, 2012. Both the Emergency Manager and the subsequently appointed Emergency Financial Manager were authorized by virtue of their appointment to "act for and in the place and stead of the governing body and the office of chief administrative officer of the City of Flint." On March 28, 2013, Public Act 436 will become effective and provides that an emergency financial manager appointed and serving under state law immediately prior to the effective date shall continue to serve as an emergency manager under Public Act 436. As an alternative to continuation of an emergency manager, and if the financial emergency has been rectified, Public Act 436 authorizes the governor to appoint a receivership transition advisory board, which serves at the pleasure of the governor and monitors the affairs of the local government until the receivership is terminated.]

No vote was taken on this amendment.

Amended

130210.1 Amended Resolution/City Council/Mayor Dayne Walling/Request for Appointment of Transition Advisory Board

Amended resolution resolving that Mayor Dayne Walling and the Flint City Council request and recommend to Gov. Rick Snyder that a receivership transition advisory board be appointed for the City of Flint under Public Act 436 no later than July 1, 2013. [NOTE: On December 1, 2011, Gov. Snyder appointed Michael K. Brown as Emergency Manager under Public Act 4 for the

City of Flint, due in part to a consistent deficit in the general fund, the decline in pooled cash, budget issues and unfunded liabilities for post-employment benefits. Due to the suspension and subsequent repeal of Public Act 4, Gov. Snyder appointed Edward J. Kurtz as Emergency Financial Manager under Public Act 72 for the City of Flint, effective August 9, 2012. Both the Emergency Manager and the subsequently appointed Emergency Financial Manager were authorized by virtue of their appointment to "act for and in the place and stead of the governing body and the office of chief administrative officer of the City of Flint." On March 28, 2013, Public Act 436 will become effective and provides that an emergency financial manager appointed and serving under state law immediately prior to the effective date shall continue to serve as an emergency manager under Public Act 436. As an alternative to continuation of an emergency manager, and if the financial emergency has been rectified, Public Act 436 authorizes the governor to appoint a receivership transition advisory board, which serves at the pleasure of the governor and monitors the affairs of the local government until the receivership is terminated.] [Six-page resolution amended for changes proposed by City Council, City Clerk and Mayor Dayne Walling.]

A motion was made by Councilperson Freeman, seconded by Councilperson Poplar, that this matter be Adopted. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

MEETING SCHEDULE

ADDITIONAL COUNCIL DISCUSSION

ADJOURNMENT

Having no further business, Council President Scott Kincaid adjourned the meeting at 8:59 p.m.

Respectfully transcribed and submitted,

Janell Johnson. Administrative Secretary to City Council

EM SUBMISSION NO.: 2013EM041

PRESENTED: 3-28-13

ADOPTED: 3-29-13

BY THE EMERGENCY MANAGER:

RESOLUTION TO PURCHASE CAPACITY FROM KAREGNONDI WATER AUTHORITY

The Karegnondi Water Authority (KWA) is a governmental consortium of cities and counties in southeastern Michigan that was created to build a water pipeline that will provide water from Lake Huron to interested communities in Sanilac, Lapeer, and Genesee counties. The incorporating bodies that created the KWA are Sanilac County, Lapeer County, Genesee County, the City of Flint, and the City of Lapeer.

The City of Flint is currently in a year to year contract with the City of Detroit for the purchase of water. A study was conducted that projected that staying with Detroit will cost the region $2.1 billion over the next 25 years. In contrast, if the region builds its own pipeline, the projected costs are $1.9 billion over the same period. After the initial 25 year period, the projected costs would be less then 25% of the projected water costs from Detroit.

In order to build the pipeline, the KWA needs commitment from its members regarding the capacity that each member will purchase in the pipeline. The KWA is allowed to withdraw 85 million gallons of water per day. Capacity is available to members in increments of 1 million gallons per day known as units. For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one time fee of $32,300.00. Additionally, the buyer shall pay to the KWA not less then $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount not to exceed $355.300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00 the buyer has a right to cancel the contract.

The purchase of capacity along with the payment of other costs necessary to operate the pipeline gives the member a right to water for sale to its customers. The buyer has a right to resell capacity and water rights. Each party entering into a capacity contract shall also be entitled to appoint additional board members equal to the party's percentage share of the total capacity under contract.

It is in the long term best interests of the City of Flint to enter into a contract with the KWA to purchase up to eighteen (18) units of capacity.

IT IS RESOLVED that City officials are authorized to enter into a contract with KWA to purchase up to eighteen (18) units of capacity.

IT IS FURTHER RESOLVED that the City Administrator is authorized to provide KWA information needed to administer the contract and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract.

APPROVED AS TO FORM:

Peter M. Bade, City Attorney

APPROVED AS TO FINANCE:

For **Gerald Ambrose, Finance Director**

EM DISPOSITION:

ENACT 1/ **FAIL** _____ **DATED** 3-29-13

Edward L. Kurtz, Emergency Manager

S:\P. Bade\EM2013\Resolutions\KWA.03.28.13.doc

Flint

Flint City Council approves resolution to buy water from Karegnondi, state approval still needed

[http://connect.mlive.com/staff/dadams1/index.html] By Dominic Adams | dadams5@mlive.com [http://connect.mlive.com/staff/dadams1/posts.html]
Follow on Twitter [http://www.twitter.com/dominicadams]
on March 25, 2013 at 10:45 PM, updated March 26, 2013 at 1:28 AM

FLINT, MI – Flint is one step closer to getting its water from Lake Huron as part of the Karegnondi Water Authority.

The vote, **approved 7-1 at the Flint City Council meeting Monday, March 25 [http://www.mlive.com/news/flint/index.ssf/2013/03/flint_city_council_again_delay.html]** , may have set in motion the end to Flint paying to get its water from Detroit.

Under the proposal, Flint would get 16 million gallons per day of raw water from Lake Huron, pipe it to Flint for treatment and then sell it to customers throughout the city. Another 2 million gallons per day would come from the Flint River and will be treated in Flint.

Mayor Dayne Walling said the Department of Environmental Quality must approve Flint's getting 2 million gallons per day from the Flint River.

Tuesday's meeting followed weeks of discussions and special meetings surrounding the resolution.

"We got there," Councilman Joshua Freeman said. "That's the important thing."

There were more than 50 people at Monday's meeting.

"Going with Karegnondi is the best decision. We have no opinion on the economics of the decision," said Rebecca Fedewa, Flint River Watershed Coalition executive director. "If we start drawing water out of the Flint River, we are at risk of having to start releasing water from our reservoirs."

Genesee County Drain Commissioner Jeff Wright said the decision must still be approved by a county water and waste advisory board. The KWA board will then be reconvened for final approval.

Wright said construction could start in May.

State treasury officials still must approve the city council's move because Flint has an emergency financial manager. All expenditures over $50,000 must be approved.

Genesee County Drain Commissioner Jeff Wright has said that Flint would pay roughly $6.4 million annually for water service if it joined the pipeline – a nearly $4 million savings on what it pays Detroit for water.

Walling previously said the **city would save $19 million over eight years [http://www.mlive.com/news/flint/index.ssf/2013/03/flint_city_council_delays_deci.html]** by getting water from the KWA.

"It's a historic night in the City of Flint," Walling said. "The savings will be less with the capacity level approved by city council because there will be increased treatment cost for the river water."

He said the DEQ told the city it needed to get 18 million gallons per day or there would have to be additional work done at Flint's water plant.

Flint's water plant and the Flint River is currently the backup for Flint and Genesee County, however, the plant only operates four times per year.

Councilman Bryant Nolden was the lone dissenting vote.

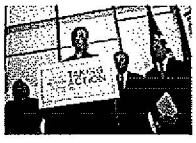
"It was a protest vote," Nolden said. "I knew they had enough votes. I just feel like the Flint River is our best option."

Karengnondi is the regional water authority that includes Genesee, Lapeer and Sanilac counties and the cities of Flint and Lapeer.

Flint is the second municipality, behind Genesee County, to officially decide to purchase raw water through the KWA. Lapeer city officials said they intend to purchase water, but an agreement has been finalized.

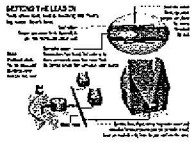
Dominic Adams is a reporter for MLive-Flint Journal. Contact him at ***dadams5@mlive.com*** *or 810-241-8803. Follow him on* ***Twitter [http://www.twitter.com/dominicadams]*** *,* ***Facebook [http://www.facebook.com/dominic.adams.1865]*** *or* ***Google+ [https://plus.google.com/103690672506808729911?rel=author]*** *.*

Related Stories



Price of Detroit water for Flint is $1.5 million a month, mayor says

[http://www.mlive.com/news/flint/index.ssf/2015/10/mayor_city_ad



Here's how that toxic lead gets into Flint water

[http://www.mlive.com/news/flint/index.ssf/2015/10/see_step_by_s

Registration on or use of this site constitutes acceptance of our User Agreement and Privacy Policy

© 2015 MLive Media Group All rights reserved (About Us).
The material on this site may not be reproduced, distributed, transmitted, cached or otherwise used, except with the prior written permission of MLive Media Group

Community Rules apply to all content you upload or otherwise submit to this site. Contact Interactivity management.

▷ Ad Choices

GENESEE COUNTY DRAIN COMMISSIONER'S OFFICE
JEFFREY WRIGHT
COMMISSIONER
G-4608 BEECHER ROAD, FLINT, MI 48532
PHONE (810) 732-1590 FAX (810) 732-1474

FOR IMMEDIATE RELEASE

CONTACT: Jeff Wright

March 26, 2013

810-287-1925

What: Jeff Wright Statement on Flint City Council Approving Resolution to Join KWA.

When: March 26, 2013

Additional Info: Jeff Wright, CEO of the KWA, today praised the Flint City Council for voting to approve a resolution to officially have the City of Flint join the KWA and its' water line.

"I have said from the beginning that this decision must be made by Flint's City Council and Mayor," said Wright. "I appreciate the council voting the way they did, but even more than that, I am glad the residents of Flint were able to have their voices heard via their elected officials." The next step in the process will come with the KWA Board executing the contract for the City.

"The most important aspect from the vote is the fact that we as an Authority can move forward knowing Flint's intentions," said Wright.

Despite Emergency Manager Ed Kurtz publicly supporting the project, Wright had made a vote by council a condition of Flint joining the KWA so the residents would have their say.

"There is a basic tenet that government is best when it has local control. We saw that with the council vote. Nobody, whether they live in Flint, Grand Blanc, Davison, Fenton, or anywhere in Genesee County, should have these types of decisions made by people who live outside of their community," said Wright.

At the next Water and Waste Advisory Board meeting a vote will be taken to award a contract for construction of the intake portion of the water line. All bids were submitted to the board at their last meeting for review.

89 (Rev. 02-11)

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

ANDY DILLON
STATE TREASURER

April 11, 2013

Mr. Edward Kurtz
Emergency Manager
City of Flint
1101 South Saginaw Street
Flint, MI 48502

Dear Mr. Kurtz:

Thank you for your March 29, 2013 letter, which is attached for reference. As the Emergency Manager for the City of Flint ("Flint" or "City"), you have asked for my concurrence, pursuant to Public Act 436 of 2012, the Local Financial Stability and Choice Act, to authorize a contract in excess of $50,000.00 not subject to competitive bidding. This request was related to the City entering into an agreement with the Karegnondi Water Authority (KWA) for provision of raw water for the City.

In considering your request, I took note of the following facts in support of Flint joining KWA. First, there is widespread support in the City for this move, including the support of the Mayor, the City Council, and the Emergency Manager. Second, this move will provide a unique opportunity for the City and County to partner on an important project, which will hopefully lead to future regional collaboration. Third, the Department of Environmental Quality is supportive of the City participating in the KWA project. Finally, your representations that this deal will lead to substantial savings for the City over the coming decades, savings that are desperately needed to help with the turnaround of the City of Flint.

It is my understanding that the Detroit Water and Sewer Department is making a final best offer to Genesee County and the City of Flint next Monday, April 15, 2013. As such, this approval will be effective at 5 pm on April 16, 2013 after receiving written notice from the City that either no such offer was presented to the county and the City or that an offer was received and was rejected in good faith based upon specified objections.

For the reasons described above and subject to the conditions set forth herein, pursuant to Section 12 (3) of PA 436 of 2012, I am authorizing you to proceed with adopting the resolution and entering into a contract with KWA.

Sincerely,

Andy Dillon
State Treasurer

Flint

Flint council supports buying water from Lake Huron through KWA

[http://connect.mlive.com/staff/dadams1/index.html] By Dominic Adams | dadams5@mlive.com [http://connect.mlive.com/staff/dadams1/posts.html]
Follow on Twitter [http://www.twitter.com/dominicadams]
on March 25, 2013 at 7:17 PM, updated March 26, 2013 at 7:43 AM

FLINT, MI -- Flint residents may soon get their water from Lake Huron.

The Flint City Council voted 7-1 to get 16 million gallons per day from the Karegnondi Water Authority.

"This is about compromise," said Councilman Sheldon Neeley.

Neeley got support from Councilman Joshua Freeman, after the two were previously at odds about the amount the city should withdraw from Lake Huron.

Councilman Bryant Nolden was the lone "no" vote.

"It was a protest vote," Nolden said. "I just feel like the Flint River is our best option."

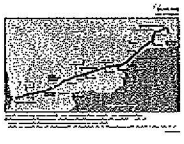
Genesee County Drain Commissioner said construction of the pipeline could start in May.

The city currently pays to get its water from Detroit.

State treasury officials still must approve the city council's move because Flint has an emergency financial manager. All expenditures over $50,000 must be approved.

*Dominic Adams is a reporter for MLive-Flint Journal. Contact him at **dadams5@mlive.com** or 810-241-8803. Follow him on **Twitter [http://www.twitter.com/dominicadams]** , **Facebook [http://www.facebook.com/dominic.adams.1865]** or **Google+ [https://plus.google.com/103690672506808729911?rel=author]** .*

Related Stories



Enbridge can begin piping tar sands oil along Lake Ontario north shore

[http://www.mlive.com/news/index.ssf/2015/10/enbridge_can_beg

Former Detroit American Motors Corp. headquarters being auctioned; starting bid $500

[http://www.mlive.com/news/detroit/index.ssf/2015/10/former_detr

Registration on or use of this site constitutes acceptance of our User Agreement and Privacy Policy

© 2015 MLive Media Group All rights reserved (About Us).
The material on this site may not be reproduced, distributed, transmitted, cached or otherwise used, except with the prior written permission of MLive Media Group

Community Rules apply to all content you upload or otherwise submit to this site. Contact interactivity management.

▷ Ad Choices

Resolution: 130165.2

Presented: 3-11-13

Adopted: 3-25-13

AMENDED RESOLUTION TO PURCHASE CAPACITY FROM KAREGNONDI WATER AUTHORITY

BY THE MAYOR:

The Karegnondi Water Authority (KWA) is a governmental consortium of cities and counties in southeastern Michigan that was created to build a water pipeline that will provide water from Lake Huron to interested communities in Sanilac, Lapeer, and Genesee counties. The incorporating bodies that created the KWA are Sanilac County, Lapeer County, Genesee County, the City of Flint, and the City of Lapeer.

The City of Flint is currently in a year to year contract with the City of Detroit for the purchase of water. A study was conducted that projected that staying with Detroit will cost the region $2.1 billion over the next 25 years. In contrast, if the region builds its own pipeline, the projected costs are $1.9 billion over the same period. After the initial 25 year period, the projected costs would be less then 25% of the projected water costs from Detroit.

In order to build the pipeline, the KWA needs commitment from its members regarding the capacity that each member will purchase in the pipeline. The KWA is allowed to withdraw 85 million gallons of water per day. Capacity is available to members in increments of 1 million gallons per day known as units. For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one time fee of $32,300.00. Additionally, the buyer shall pay to the KWA not less then $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount not to exceed $355,300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00 the buyer has a right to cancel the contract.

The purchase of capacity along with the payment of other costs necessary to operate the pipeline gives the member a right to water for sale to its customers. The buyer has a right to resell capacity and water rights. Each party entering into a capacity contract shall also be entitled to appoint additional board members equal to the party's percentage share of the total capacity under contract.

The City of Flint has decided that it is in its long term best interests to enter into a contract with the KWA to purchase SIXTEEN (16) units of capacity, plus TWO (2) units from the Flint River.

IT IS RESOLVED that City officials are authorized to enter into a contract with KWA to purchase SIXTEEN (16) units of capacity, plus TWO (2) units from the Flint River.

IT IS FURTHER RESOLVED that the City Administrator is authorized to provide KWA information needed to administer the contract and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract.

APPROVED AS TO FORM:

Peter M. Bade
Chief Legal Officer

APPROVED AS TO FINANCE:

Gerald Ambrose
Finance Director

APPROVED BY MAYOR:

Dayne Walling
Mayor

APPROVED BY CITY COUNCIL
ON: March 25, 2013

Inez Brown
Clerk, City of Flint

APPROVED BY
CITY COUNCIL
MAR 25 2013

S:\JP\Ordinances and Resos\KWA.03.08.13.doc

From:	Wyant, Dan (DEQ)
Sent:	Tuesday, October 13, 2015 2:34 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV)
Subject:	2015-10-13 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-10-13 Action Steps Week of October 12-16.pdf; 2015-10-13 Flint Drinking Water Action Plan Update.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 12-16

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Identify schools and prioritize for assessment	GCISD, GCHD, DEQ, DHHS, and Flint	Steve Busch	Done 10/13/15
2.	Get DLARA plumbers organized	DEQ and DLARA	Steve Busch	
3.	Complete sampling instructions	DEQ, DHHS, and EPA	Pat Cook	
4.	MDARD information for restaurants	MDARD, DHHS, and DEQ	Dana DeBruyn	
5.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	
6.	Approve Flint plan for water line	DEQ, Flint, and Genesee County	Mike Prysby	Chlorination/disinfection of 72-inch main begun
7.	Lead education plan for schools for drinking water	DHHS and DEQ	Liane Shekter Smith	
8.	Begin regular meetings with Flint	DEQ and Flint	George Krisztian	Request made on 10/12/15; waiting for response
9.	Schedule Water Treatment Plant tour	DEQ and Flint	George Krisztian	Request made on 10/12/15; waiting for response
10.	Meet with schools and DLARA – invitation only	DEQ, DLARA, and Flint schools	Karen Tommasulo	
11.	Update DEQ Web page	DEQ	Karen Tommasulo	Done 10/12/15
12.	Contact DHHS to see where they are with United Way regarding emergency declaration	DEQ and DHHS	George Krisztian	Request made on morning of 10/13/15
13.	Circulate protocol draft with EPA	DEQ and EPA	Liane Shekter Smith	
14.	Contact city about homeowner sample delivery	DEQ and Flint	George Krisztian	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
15.	Communicate to MDARD and Flint that business samples should be coordinated though DEQ laboratory	DEQ, MDARD, and Flint	Liane Shekter Smith George Krisztian	Liane to call MDARD and George to call Flint
16.	Figure out number of samples from schools and child care facilities	DEQ	Liane Shekter Smith Pat Cook Steve Busch	
17.	Confirm Linda Dykema is Point of Contact for DHHS	DEQ	George Krisztian	Done
18.	Contact KWA to find out if there are any bottlenecks we need to remove	DEQ and KWA	Mike Prysby	
19.	Expedite 399 Plan and Phosphate Plan	DEQ and Flint	Mike Prysby	
20.	Get update on service line index card conversion and identify where partial replacements exist	DEQ and Flint	Steve Busch	
21.	Make sure DHHS gets information so they can cross reference	DEQ and DHHS	Steve Busch	
22.	Legislative contacts	DEQ	Maggie Pallone	Conference call with Sen. Jim Ananich conducted on 10/12/15
23.	Legislative time line and summary	DEQ	Maggie Pallone	
24.	Reconnect with State Superintendent Brian Whiston	DEQ and Department of Education	Dan Wyant	Conference call conducted on 10/12/15
25.	Conduct After Action Plan	DEQ	George Krisztian	To be scheduled for 10/15/15
26.	Change Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone Liane Shekter Smith Sonya Butler	

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

Coordinating Efforts Meeting on October 12, 2015

DEQ, DHHS, and DLARA met to discuss coordinating efforts for the Flint Action Plan. Issues discussed were:

- Flint is in the process of prioritizing schools for lead and copper testing. Should have list by COB October 14, 2015.

- Flint is sending out 3rd quarter reports incorporating input from the Technical Advisory Committee.

- Weekly meetings are being set up with agency points of contact from DEQ, DHHS, and DLARA. These contacts are:

  George Krisztian (DEQ)
  Linda Dykema (DHHS)
  Shelly Edgerton (DLARA)

- DEQ is in the process of setting up weekly meetings with Mayor Dayne Walling. DHHS and DLARA will name representatives for these meetings. The initial meetings will be face-to-face, and then the use of conference calls will be evaluated later.

- DEQ is setting up a tour of the Flint Water Treatment Plant. Representatives from DHHS and DLARA will be included.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
Cell: [redacted]
October 13, 2015

From: Agen, Jarrod (GOV)
Sent: Tuesday, October 13, 2015 4:14 PM
To: Dickinson, Sarah (GOV); Bedan, Morgan (GOV)
Cc: Scott, Allison (GOV); Clement, Elizabeth (GOV); Muchmore, Dennis (GOV)
Subject: Flint Timeline
Attachments: 1st letter to blend.pdf; 2nd request to blend.pdf; KWA Approval.pdf; Kurtz KWA.pdf; DWSD Termination Ltr.pdf

Importance: High

Can we put into Gov's briefing tonight?

Kurtz was EM at time of final decision/move to switch to KWA. Earley was EM at time of switch to Flint River water.

Flint EM dates (financial emergency declared in December 2011)

Mike Brown, apptd 12-1-11 (when fin emer declared under PA 4 of 2011)
Ed Kurtz, apptd 8-8-12 (when PA4 was repealed in Aug 2012, Brown couldn't serve as EM, PA 72 back in effect)
Mike Brown, apptd 7-4-13 (Kurtz retired; PA436 in effect)
Darnell Earley, apptd 10-8-13 (Brown resigned)
Gerald Ambrose, apptd 1-13-15 (Earley appointed DPS EM)

Financial Emergency resolved, 4-29-15 (RTAB apptd)

Other dates

June 26, 2012 – Letter from EM Brown to DWSD seeking permission to blend river water with DWSD water (attached).

Sept. 20, 2012 – Letter from EM Kurtz to DWSD requesting written permission to implement blending (attached).

March 25, 2013 – The Flint City Council endorses joining KWA (see url below)
http://blog.mlive.com/newsnow_impact/print.html?entry=/2013/03/flint_city_council_approves_re.html

April 11, 2013 – Treasurer Dillion sends letter to EM Kurtz (attached) noting conditional approval of move to KWA (pursuant to PA436), pending a review of DWSD's last, best offer.

April 16, 2013 – EM Kurtz informs Treasury that the City will join KWA (attached).

April 17, 2013 – DWSD transmits letter to EM Kurtz terminating service to Flint, effective April 17, 2014 (attached).

April 17, 2014 – Water service from DWSD officially ends.

CITY OF FLINT

Infrastructure and Development

Dayne Walling
Mayor

Michael K. Brown
Emergency Manager

Howard D. Croft
Director

June 26, 2012

Sue F. McCormick
Director DWSD
735 Randolph St.
Detroit, MI 48226

Dear Ms. McCormick,

In cooperation with the Michigan Department of Environmental Quality (MDEQ) and city engineers, the City of Flint has undertaken a review of the regulatory requirements necessary to supply water to our residential and commercial customers. As part of our evaluation it was determined that the Flint Water Treatment Plant is capable of successfully "blending" or "co-mingling" water sources while continuing to provide quality drinking water to citizens.

The Flint Water Treatment Plant would require approximately $1.3 million dollars in increased expenses in order to blend as much as one third (1/3) of treated river water with two thirds (2/3) of treated DWSD water. Using the 2013 DWSD rates this would result in savings of between two and three million dollars annually based on current usage data. The MDEQ has provided Flint with written documentation supporting our blending of water sources and the potential benefit.

Given this information we respectfully request written permission from DWSD to proceed with blending treated Flint River Water with treated DWSD water.

It should be understood that our goal is to deliver both high quality and economically viable water to our customers. This goal has led us to fully consider all available options including purchasing water from the Karegnondi Water Authority and use of the Flint River. We believe that in order for an option with DWSD to be successful it is essential that along with the proposed authorization to blend water that there is a guaranteed containment of the new "fixed costs" that exist in the current fee structure. The new DWSD fixed charge of $707,000 each month regardless of amount of water used is five times the original $143,000 each month instituted only two years ago. This has resulted in the cost of water from DWSD dropping in recent years as the overall fee has increased annually by millions although our usage has continued to decline. The continuation of this trend would render our request and goals invalid.

With the current Emergency Manager condition in Flint we believe that limiting an agreement to only three years is appropriate. This time frame would also serve as an evaluation period prior to any proposed long term agreement being considered.
We appreciate your consideration and look forward to working together.

Sincerely,

Michael K. Brown
Emergency Financial Manager Flint, Mi.

CITY HALL 1101 S. SAGINAW STREET FLINT, MICHIGAN 48502 TEL: 810-766-7135 FAX: 810-766-7249

Edward J. Kurtz
Emergency Financial Manager

Dayne Walling
Mayor

September 20, 2012

Sue F. McCormick & DWSD Board
Director DWSD
735 Randolph Street
Detroit, MI 48226

Dear DWSD Board:

During the past nine months we have had several discussions with DWSD representatives regarding future water rates and other options including permission for Flint to blend treated water from DWSD. Flint currently has received written documentation from the state regulatory agency DEQ supporting the ability for Flint to safely blend treated water from Detroit.

In an effort to move forward we must have a written response from the DWSD Board that clearly states the following:

Will DWSD allow Flint to blend treated water from Detroit?

What are the rates given an estimated usage by Flint and Genesee County of:

- 23 MGD Average Daily Usage
- 40 MGD Maximum Day Usage

We are requesting this information be delivered to Flint no later than **October 1, 2012** so that we may evaluate all of our options and begin moving forward.

Sincerely,

Edward J. Kurtz
Emergency Financial Manager

City Hall
1101 S. Saginaw Street - Flint, Michigan 48502
810-766-7346 FAX: 810-766-7218 www.cityofflint.com

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

ANDY DILLON
STATE TREASURER

Mr. Edward Kurtz
Emergency Manager
City of Flint
1101 South Saginaw Street
Flint, MI 48502

April 11, 2013

Dear Mr. Kurtz:

Thank you for your March 29, 2013 letter, which is attached for reference. As the Emergency Manager for the City of Flint ("Flint" or "City"), you have asked for my concurrence, pursuant to Public Act 436 of 2012, the Local Financial Stability and Choice Act, to authorize a contract in excess of $50,000.00 not subject to competitive bidding. This request was related to the City entering into an agreement with the Karegnondi Water Authority (KWA) for provision of raw water for the City.

In considering your request, I took note of the following facts in support of Flint joining KWA. First, there is widespread support in the City for this move, including the support of the Mayor, the City Council, and the Emergency Manager. Second, this move will provide a unique opportunity for the City and County to partner on an important project, which will hopefully lead to future regional collaboration. Third, the Department of Environmental Quality is supportive of the City participating in the KWA project. Finally, your representations that this deal will lead to substantial savings for the City over the coming decades, savings that are desperately needed to help with the turnaround of the City of Flint.

It is my understanding that the Detroit Water and Sewer Department is making a final best offer to Genesee County and the City of Flint next Monday, April 15, 2013. As such, this approval will be effective at 5 pm on April 16, 2013 after receiving written notice from the City that either no such offer was presented to the county and the City or that an offer was received and was rejected in good faith based upon specified objections.

For the reasons described above and subject to the conditions set forth herein, pursuant to Section 12 (3) of PA 436 of 2012, I am authorizing you to proceed with adopting the resolution and entering into a contract with KWA.

Sincerely,

Andy Dillon
State Treasurer

CITY OF FLINT
OFFICE OF EMERGENCY MANAGER
EDWARD J. KURTZ

ELECTRONIC LETTER

April 16, 2013

Andy Dillon
State Treasurer
P. O. Box 30716
Lansing, MI 48909

Dear Treasurer Dillon:

Flint, Genesee County and KWA received an eight page letter from Detroit Water and Sewerage Department (DWSD) offering a framework for a long-term agreement with our region. Two scenarios were presented;

Scenario 1: Water from the Lake Huron Plant.

This offer was dismissed immediately because Flint would still be responsible for their share of the KWA water pipeline delivery system estimated to be $79 million. In addition Flint would not be able to operate the Flint Water Plant in which we have invested over $40 million per MDEQ mandates over the past ten years. Finally, although DWSD shows this as an option and supplied a per month cost projection for the first year, no total costs over the life of the contract were provided.

Scenario 2: "Full Service" Water Supply

This offer was also rejected. DWSD would supply water to Flint/Genesee the same way they currently are today. They would change the method of calculating our bill. The offer would provide a $1.00 per ccf reduction on our usage for the first year, providing a 30 year contract is signed.

After review of the offer, Flint/Genesee has the following concerns:

1. DWSD's offer is a framework subject to negotiations and is not a firm offer.

2. DWSD's offer is based on 40.6 mgd, the KWA plan is based on 60 mgd. Flint/Genesee last summer hit the peak of 40.6 mgd and this DWSD offer provides no room for growth. Growth would result in penalties or added cost.

3. DWSD's offer does not include a guaranteed rate for years two through thirty, nor does it provide a maximum annual increase.

4. DWSD's offer does not provide a redundant supply for GCDC.

5. DWSD's offer does not allow for the use of Flint's existing water plant.

6. The offer indicates that the total cost to Flint over the life of the contract would be $587,990,665. No indication of what annual rate of increase was used in this projection. Flint can only assume it is 4.4% based on the Tucker Young report. It is also based on 40.6 mgds. KWA's proposal is for $649,775,166 based on 60mgds (33% more). Based on 60 mgds DWSD's proposal would be $868,950,738.

On a final note, Flint/Genesee has great concern over the accuracy of the figures provided by DWSD. Attachment 1 indicates that our joint annual cost to DWSD is $50 million; actual cost is less than $25 million. Attachment 2 indicates $800 million in savings over the next 30 years. That is greater than the total cost we would pay DWSD.

Therefore, I will sign the resolution to join KWA at the close of business today.

Sincerely,

Edward J. Kurtz
Emergency Manager

City of Detroit
Water and Sewerage Department
Office of the Director

735 Randolph Street
Detroit, Michigan 48226
www.detroitmi.gov

RECEIVED
CITY OF FLINT
CITY CLERK'S OFFICE
2013 APR 18 AM 11:23

April 17, 2013

Via Certified Mail and Electronic Delivery

Ms. Inez M. Brown
City Clerk
City of Flint
2nd Floor, City Hall
1101 S. Saginaw Street
Flint, Michigan 48502

Dear Ms. Brown:

Regarding: Termination of Contract for the Provision of Water Services by the City of Detroit, Water and Sewerage Department

On December 20, 1965, the City of Detroit, through its Board of Water Commissioners, (DWSD) and the City of Flint, Michigan (Flint) entered into a contract for the provision of DWSD treated water to Flint and the distribution by flint of that water to other Genesee County communities. Section 18 of that Agreement[1] provides:

18. The Board [DWSD] shall supply and sell water to the City [Flint] from the water system of the City of Detroit, and the City shall receive and purchase such water in accordance with the terms of this Agreement for an indefinite period of time but at least for a period of thirty-five (35) years from the date hereof. This Agreement may be terminated by either party after expiration of said 35-year period, upon one year's written notice served upon the other party by delivering the same to the Secretary of the Board or to the Clerk of the City as the case may be, or at any time upon mutual consent of both parties.

Please take notice that pursuant to this section, 18, of the above-referenced Agreement, DWSD is terminating this Agreement one year from today's date (April 17, 2014).

Sincerely yours,

Sue F. McCormick
Director

[1] Although the Agreement between DWSD has been subsequently amended, Section 18 remains unchanged and in full effect.

From: Wyant, Dan (DEQ)
Sent: Wednesday, October 14, 2015 1:12 PM
To: Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc: Dickinson, Sarah (GOV); Wyant, Dan (DEQ)
Subject: 2015-10-14 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: 2015-10-14 Action Steps Week of October 12-16.pdf; 2015-10-14 Flint Drinking Water Action Plan Update.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 12-16

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Identify schools and prioritize for assessment	GCISD, GCHD, DEQ, DHHS, and Flint	Steve Busch	Completed
2.	Get DLARA plumbers organized	DEQ and DLARA	Steve Busch	DLARA inspectors are ready
3.	Complete sampling instructions	DEQ, DHHS, and EPA	Pat Cook	Incorporating comments from partners
4.	MDARD information for restaurants	MDARD, DHHS, and DEQ	Dana DeBruyn	Comments provided to MDARD
5.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	
6.	Approve Flint plan for water line	DEQ, Flint, and Genesee County	Mike Prysby	Disinfection complete; waiting for test results and completion of system flushing
7.	Lead education plan for schools for drinking water	DHHS and DEQ	Liane Shekter Smith	DEQ working with DHHS to determine who will be the lead
8.	Begin regular meetings with Flint	DEQ and Flint	George Krisztian	Meeting tentatively scheduled for 10/16/15
9.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	Tour tentatively scheduled for 10/16/15
10.	Meet with schools and DLARA – invitation only	DEQ, DLARA, and Flint schools	Karen Tommasulo	
11.	Update DEQ Web page	DEQ	Karen Tommasulo	Done 10/12/15

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
12.	Contact DHHS to see where they are with United Way regarding emergency declaration	DEQ and DHHS	George Krisztian	Completed; DHHS to notify DEQ if status changes
13.	Circulate protocol draft with EPA	DEQ and EPA	Liane Shekter Smith	
14.	Contact city about homeowner sample delivery	DEQ and Flint	George Krisztian	
15.	Communicate to MDARD and Flint that business samples should be coordinated though DEQ laboratory	DEQ, MDARD, and Flint	Liane Shekter Smith George Krisztian	Liane to call MDARD and George to call Flint
16.	Figure out number of samples from schools and child care facilities	DEQ	Liane Shekter Smith Pat Cook Steve Busch	
17.	Confirm Linda Dykema is Point of Contact for DHHS	DEQ	George Krisztian	Done
18.	Contact Karegnondi Water Authority (KWA) to find out if there are any bottlenecks we need to remove	DEQ and KWA	Mike Prysby	Further discussions with Lapeer County may need to take place
19.	Expedite 399 Plan and Phosphate Plan	DEQ and Flint	Mike Prysby	Corrosion control optimization studies in process
20.	Get update on service line index card conversion and identify where partial replacements exist	DEQ and Flint	Steve Busch	
21.	Make sure DHHS gets information so they can cross reference	DEQ and DHHS	Steve Busch	
22.	Legislative contacts	DEQ	Maggie Pallone	Conference call with Sen. Jim Ananich conducted on 10/12/15

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
23.	Legislative time line and summary	DEQ	Maggie Pallone	Provided backgrounder and time line to legislators on 10/13/15
24.	Reconnect with State Superintendent Brian Whiston	DEQ and Department of Education	Dan Wyant	Conference call conducted on 10/12/15
25.	Conduct After Action Plan	DEQ	George Krisztian	To be scheduled for 10/15/15
26.	Change Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone Liane Shekter Smith Sonya Butler	

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- The preliminary list of schools is completed, has been circulated to DHHS, and has been provided to DLARA to begin plumbing assessments. The list will remain active in case of additional schools requesting assessment/testing.

- DLARA to coordinate with Flint Schools on access for plumbing assessments. Tap coding identification from U.S. Environmental Protection Agency (EPA) guidance to be provided to DLARA.

- Preliminary comments on sampling instructions were received by voice mail from EPA. Need to discuss directly.

- DEQ comments provided to MDARD on information for restaurants, and a draft was forwarded to DHHS for their comments.

- Approve Flint plan for water line – The city of Flint and Genesee County flushed the pipeline beginning October 13; the first set of samples for total coliform analysis was collected around 2:30 a.m. Genesee County planned to collect their second sample for bacteriological analysis between 6 and 8 p.m. last night. It may take additional time to flush the Dort Reservoir before it is ready to be sampled and may set back the time that the pipeline is ready to be placed into operation (October 15 is the soonest possible). The yard piping configuration at the Flint Water Treatment Plant does allow for flexibility in operation and ability to take Dort out of service and maintain supply from Detroit; however, we have not been able to confirm that this is the way Flint plans to proceed.

- An e-mail was sent to DHHS regarding the lead education plan for schools for drinking water to determine if DEQ or DHHS will be the lead and to determine how this effort will be coordinated with broader lead education/outreach efforts.

- The city of Flint has been contacted regarding scheduling regular meetings with DEQ, and the initial meeting is tentatively scheduled for Friday, October 16.

- The city of Flint has been contacted to schedule a tour of the Flint Water Treatment Plant. It is tentatively scheduled to occur in conjunction with the initial meeting. Logistics may require postponement until the week of October 19.

- DHHS has been contacted, and they have indicated that as of 9:30 a.m. on October 13, there has been no formal request for an emergency declaration.

- John O'Brien, Genesee County Drain Commissioner's office, was contacted. The most significant bottleneck to expedite completion of the Karegnondi Water Authority (KWA) pipeline involves road restrictions currently being imposed by the Lapeer County Road Commission and include:
    - All Lapeer County secondary north-south roads are tagged "no construction traffic" for this project except for primary roads (M-19, M-53, and M-24). This significantly increases distances that construction vehicles must travel (upwards of 15 to 20 miles) to accomplish a short jog either north or south.
    - Weight restrictions in the spring will cause construction to slow or stop for one to two months. Lapeer County has indicated that St. Clair and Sanilac are not imposing the weight restrictions; however, Lapeer County will maintain their restrictions.

- DEQ staff indicated there is another potentially serious bottleneck concerning construction of the KWA pipeline. A "stop-work" order could be coming soon from the Lapeer County Road Commission.

- Samir Matta from Lockwood, Andrews & Newnam, Inc. (LAN), Flint's consultant, was contacted for an update on the corrosion control plan and submittal of the Act 399 permit application. Flint operators, with the assistance of LAN, conducted bench tests using a corrosion inhibitor (orthophosphate) and are making comparisons for use with (treated water from Detroit vs. water treated from the Flint River). LAN is currently preparing plans and a design for installation of an orthophosphate feed system. LAN expects to submit the Act 399 permit application to the DEQ by no later than the end of this week.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
Cell: [redacted]
October 14, 2015

From:	Thelen, Mary Beth (DEQ)
Sent:	Thursday, October 15, 2015 1:51 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Dickinson, Sarah (GOV); Wyant, Dan (DEQ)
Subject:	2015-10-15 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE
Attachments:	2015-10-15 Action Steps Week of October 12-16.pdf; 2015-10-15 Flint Drinking Water Action Plan Update.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 12-16

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Identify schools and prioritize for assessment	GCISD, GCHD, DEQ, DHHS, and Flint	Steve Busch	Completed
2.	Get DLARA plumbers organized	DEQ and DLARA	Steve Busch	DLARA inspectors are ready
3.	Complete sampling instructions	DEQ, DHHS, and EPA	Pat Cook	Incorporating comments from partners
4.	MDARD information for restaurants	MDARD, DHHS, and DEQ	Dana DeBruyn	Completed; document in review process for Web site
5.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	
6.	Approve Flint plan for water line	DEQ, Flint, and Genesee County	Mike Prysby	1st sample set results were not detected; 2nd sample set results are pending; determination of flush water disposal pending by Flint
7.	Lead education plan for schools for drinking water	DHHS and DEQ	Liane Shekter Smith	DEQ working with DHHS to determine who will be the lead
8.	Begin regular meetings with Flint	DEQ and Flint	George Krisztian	Meeting confirmed and scheduled for 10/16/15

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
9.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	Tour tentatively scheduled for 10/16/15; waiting on confirmation
10.	Meet with schools and DLARA – invitation only	DEQ, DLARA, and Flint schools	Karen Tommasulo	
11.	Update DEQ Web page	DEQ	Karen Tommasulo	Done 10/12/15
12.	Contact DHHS to see where they are with United Way regarding emergency declaration	DEQ and DHHS	George Krisztian	Completed; DHHS to notify DEQ if status changes
13.	Circulate protocol draft with EPA	DEQ and EPA	Liane Shekter Smith	Initial draft completed; comments received from EPA
14.	Contact city about homeowner sample delivery	DEQ and Flint	George Krisztian	
15.	Communicate to MDARD and Flint that business samples should be coordinated though DEQ laboratory	DEQ, MDARD, and Flint	Liane Shekter Smith George Krisztian	Liane to call MDARD and George to call Flint
16.	Figure out number of samples from schools and child care facilities	DEQ	Liane Shekter Smith Pat Cook Steve Busch	
17.	Confirm Linda Dykema is Point of Contact for DHHS	DEQ	George Krisztian	Done
18.	Contact Karegnondi Water Authority (KWA) to find out if there are any bottlenecks we need to remove	DEQ and KWA	Mike Prysby	Bottlenecks identified with Lapeer County Road Commission
19.	Expedite 399 Plan and Phosphate Plan	DEQ and Flint	Mike Prysby	Corrosion control optimization studies in process

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
20.	Get update on service line index card conversion and identify where partial replacements exist	DEQ and Flint	Steve Busch	
21.	Make sure DHHS gets information so they can cross reference	DEQ and DHHS	Steve Busch	
22.	Legislative contacts	DEQ	Maggie Pallone	Supplemental appropriations bill (HB 4102) passed in the House 105-0 (10/14/15) and the Senate 37-0 (10/15/15)
23.	Legislative time line and summary	DEQ	Maggie Pallone	Provided backgrounder and time line to legislators on 10/13/15
24.	Reconnect with State Superintendent Brian Whiston	DEQ and Department of Education	Dan Wyant	Conference call conducted on 10/12/15
25.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting to be scheduled for week of 10/19/15
26.	Change Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone Liane Shekter Smith Sonya Butler	

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- Supplemental appropriations bill (House Bill 4102) passed in the House 105-0 on October 14 and in the Senate 37-0 on October 15.

- E-mail sent to DLARA with draft sampling ID protocol.

- E-mail drafted with request for schools to prepare documents/information ahead of DLARA visit and on-site assessment. Waiting for comments.

- MDARD incorporated input from DEQ for the guidance document to restaurants. The final version is being reviewed for inclusion on the Web site.

- The pipeline was flushed, and the 1st round of samples for bacteriological analysis collected yesterday (4:00 a.m. at mid-point and 7:30 a.m. at CS #3 – Flint Water Treatment Plant) were non-detect for total coliform.

- The 2nd round of samples were collected yesterday evening at mid-point (Genesee County) and late last night at CS #3 (Flint). Results will be available later this evening and read first thing tomorrow morning. If the 2nd set of samples is all clear, the pipeline will be ready to be placed into service (from a technical standpoint). The pipeline, however, will not be placed into service until Flint, Genesee County, and Detroit agree on and establish a service contract.

- The Dort Reservoir will not be placed into service (this facility can be bypassed) until Flint determines what to do with the 6 million gallons of water (chlorinated at approximately 100 parts per million). What they thought was a connection to the sanitary sewer was discovered yesterday to be a connection to the storm sewer.

- The first weekly meeting with the city of Flint has been scheduled for October 16. Attendees will include: Natasha Henderson (city of Flint), George Krisztian (DEQ), Shelly Edgerton (DLARA), Linda Dykema (DHHS), and Dr. Eden Wells (DHHS).

- A tour of the Flint Water Treatment Plant has been requested and tentatively scheduled for October 16. We are waiting for confirmation from city of Flint officials. Due to potential scheduling conflicts, this may be rescheduled for the week of October 19.

- The initial draft of the sampling protocol has been submitted to EPA, and comments have been received.

- Potential bottlenecks have been identified regarding load restrictions. Further discussions with the Lapeer County Road Commission will be necessary to identify potential accommodations.

Additional action:

Outreach was made to the Genesee County Health Department (GCHD) to ask for assistance with the sampling of Flint schools. The GCHD has expressed some reservations, and further communication will take place to strengthen the partnership.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
Cell: [redacted]
October 15, 2015

From:	Thelen, Mary Beth (DEQ)
Sent:	Thursday, October 15, 2015 1:56 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV)
Subject:	2015-10-15 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-10-15 Action Steps Week of October 12-16.pdf; 2015-10-15 Flint Drinking Water Action Plan Update.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 12-16

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Identify schools and prioritize for assessment	GCISD, GCHD, DEQ, DHHS, and Flint	Steve Busch	Completed
2.	Get DLARA plumbers organized	DEQ and DLARA	Steve Busch	DLARA inspectors are ready
3.	Complete sampling instructions	DEQ, DHHS, and EPA	Pat Cook	Incorporating comments from partners
4.	MDARD information for restaurants	MDARD, DHHS, and DEQ	Dana DeBruyn	Completed; document in review process for Web site
5.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	
6.	Approve Flint plan for water line	DEQ, Flint, and Genesee County	Mike Prysby	1st sample set results were not detected; 2nd sample set results are pending; determination of flush water disposal pending by Flint
7.	Lead education plan for schools for drinking water	DHHS and DEQ	Liane Shekter Smith	DEQ working with DHHS to determine who will be the lead
8.	Begin regular meetings with Flint	DEQ and Flint	George Krisztian	Meeting confirmed and scheduled for 10/16/15

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
9.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	Tour tentatively scheduled for 10/16/15; waiting on confirmation
10.	Meet with schools and DLARA – invitation only	DEQ, DLARA, and Flint schools	Karen Tommasulo	
11.	Update DEQ Web page	DEQ	Karen Tommasulo	Done 10/12/15
12.	Contact DHHS to see where they are with United Way regarding emergency declaration	DEQ and DHHS	George Krisztian	Completed; DHHS to notify DEQ if status changes
13.	Circulate protocol draft with EPA	DEQ and EPA	Liane Shekter Smith	Initial draft completed; comments received from EPA
14.	Contact city about homeowner sample delivery	DEQ and Flint	George Krisztian	
15.	Communicate to MDARD and Flint that business samples should be coordinated though DEQ laboratory	DEQ, MDARD, and Flint	Liane Shekter Smith George Krisztian	Liane to call MDARD and George to call Flint
16.	Figure out number of samples from schools and child care facilities	DEQ	Liane Shekter Smith Pat Cook Steve Busch	
17.	Confirm Linda Dykema is Point of Contact for DHHS	DEQ	George Krisztian	Done
18.	Contact Karegnondi Water Authority (KWA) to find out if there are any bottlenecks we need to remove	DEQ and KWA	Mike Prysby	Bottlenecks identified with Lapeer County Road Commission
19.	Expedite 399 Plan and Phosphate Plan	DEQ and Flint	Mike Prysby	Corrosion control optimization studies in process

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
20.	Get update on service line index card conversion and identify where partial replacements exist	DEQ and Flint	Steve Busch	
21.	Make sure DHHS gets information so they can cross reference	DEQ and DHHS	Steve Busch	
22.	Legislative contacts	DEQ	Maggie Pallone	Supplemental appropriations bill (HB 4102) passed in the House 105-0 (10/14/15) and the Senate 37-0 (10/15/15)
23.	Legislative time line and summary	DEQ	Maggie Pallone	Provided backgrounder and time line to legislators on 10/13/15
24.	Reconnect with State Superintendent Brian Whiston	DEQ and Department of Education	Dan Wyant	Conference call conducted on 10/12/15
25.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting to be scheduled for week of 10/19/15
26.	Change Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone Liane Shekter Smith Sonya Butler	

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- Supplemental appropriations bill (House Bill 4102) passed in the House 105-0 on October 14 and in the Senate 37-0 on October 15.

- E-mail sent to DLARA with draft sampling ID protocol.

- E-mail drafted with request for schools to prepare documents/information ahead of DLARA visit and on-site assessment. Waiting for comments.

- MDARD incorporated input from DEQ for the guidance document to restaurants. The final version is being reviewed for inclusion on the Web site.

- The pipeline was flushed, and the 1st round of samples for bacteriological analysis collected yesterday (4:00 a.m. at mid-point and 7:30 a.m. at CS #3 – Flint Water Treatment Plant) were non-detect for total coliform.

- The 2nd round of samples were collected yesterday evening at mid-point (Genesee County) and late last night at CS #3 (Flint). Results will be available later this evening and read first thing tomorrow morning. If the 2nd set of samples is all clear, the pipeline will be ready to be placed into service (from a technical standpoint). The pipeline, however, will not be placed into service until Flint, Genesee County, and Detroit agree on and establish a service contract.

- The Dort Reservoir will not be placed into service (this facility can be bypassed) until Flint determines what to do with the 6 million gallons of water (chlorinated at approximately 100 parts per million). What they thought was a connection to the sanitary sewer was discovered yesterday to be a connection to the storm sewer.

- The first weekly meeting with the city of Flint has been scheduled for October 16. Attendees will include: Natasha Henderson (city of Flint), George Krisztian (DEQ), Shelly Edgerton (DLARA), Linda Dykema (DHHS), and Dr. Eden Wells (DHHS).

- A tour of the Flint Water Treatment Plant has been requested and tentatively scheduled for October 16. We are waiting for confirmation from city of Flint officials. Due to potential scheduling conflicts, this may be rescheduled for the week of October 19.

- The initial draft of the sampling protocol has been submitted to EPA, and comments have been received.

- Potential bottlenecks have been identified regarding load restrictions. Further discussions with the Lapeer County Road Commission will be necessary to identify potential accommodations.

Additional action:

Outreach was made to the Genesee County Health Department (GCHD) to ask for assistance with the sampling of Flint schools. The GCHD has expressed some reservations, and further communication will take place to strengthen the partnership.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
Cell: [redacted]
October 15, 2015

From:	Wyant, Dan (DEQ)
Sent:	Friday, October 16, 2015 11:03 AM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV)
Subject:	2015-10-16 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-10-16 Action Steps Week of October 12-16.pdf; 2015-10-16 Flint Drinking Water Action Plan Update.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 12-16

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Identify schools and prioritize for assessment	GCISD, GCHD, DEQ, DHHS, and Flint	Steve Busch	Completed
2.	Get DLARA plumbers organized	DEQ and DLARA	Steve Busch	DLARA inspectors are ready
3.	Complete sampling instructions	DEQ, DHHS, and EPA	Pat Cook	Incorporating comments from partners
4.	MDARD information for restaurants	MDARD, DHHS, and DEQ	Dana DeBruyn	Completed; document in review process for Web site
5.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	
6.	Approve Flint plan for water line	DEQ, Flint, and Genesee County	Mike Prysby	1st sample set results were not detected; 2nd sample set results were not detected; determination of flush water disposal pending by Flint
7.	Lead education plan for schools for drinking water	DHHS and DEQ	Liane Shekter Smith	DEQ working with DHHS to determine who will be the lead
8.	Begin regular meetings with Flint	DEQ and Flint	George Krisztian	1st meeting scheduled for 10/16/15

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
9.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	To be scheduled for week of 10/19/15; waiting on confirmation from Flint
10.	Meet with schools and DLARA – invitation only	DEQ, DLARA, and Flint schools	Karen Tommasulo	
11.	Update DEQ Web page	DEQ	Karen Tommasulo	Done 10/12/15
12.	Contact DHHS to see where they are with United Way regarding emergency declaration	DEQ and DHHS	George Krisztian	Completed; DHHS to notify DEQ if status changes
13.	Circulate protocol draft with EPA	DEQ and EPA	Liane Shekter Smith	Initial draft completed; comments received from EPA
14.	Contact city about homeowner sample delivery	DEQ and Flint	George Krisztian	Done
15.	Communicate to MDARD and Flint that business samples should be coordinated though DEQ laboratory	DEQ, MDARD, and Flint	Liane Shekter Smith George Krisztian	Liane to call MDARD; George called Flint
16.	Figure out number of samples from schools and child care facilities	DEQ	Liane Shekter Smith Pat Cook Steve Busch	
17.	Confirm Linda Dykema is Point of Contact for DHHS	DEQ	George Krisztian	Done
18.	Contact Karegnondi Water Authority (KWA) to find out if there are any bottlenecks we need to remove	DEQ and KWA	Mike Prysby	Bottlenecks identified with Lapeer County Road Commission
19.	Expedite 399 Plan and Phosphate Plan	DEQ and Flint	Mike Prysby	Corrosion control optimization studies in process

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
20.	Get update on service line index card conversion and identify where partial replacements exist	DEQ and Flint	Steve Busch	To be discussed at 10/16/15 meeting with Flint
21.	Make sure DHHS gets information so they can cross reference	DEQ and DHHS	Steve Busch	To be discussed at 10/16/15 meeting with Flint
22.	Legislative contacts	DEQ	Maggie Pallone	Supplemental appropriations bill (HB 4102) passed in the House 105-0 (10/14/15) and the Senate 37-0 (10/15/15)
23.	Legislative time line and summary	DEQ	Maggie Pallone	Provided backgrounder and time line to legislators on 10/13/15
24.	Reconnect with State Superintendent Brian Whiston	DEQ and Department of Education	Dan Wyant	Conference call conducted on 10/12/15
25.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting to be scheduled for week of 10/19/15
26.	Change Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone Liane Shekter Smith Sonya Butler	

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- Based upon discussions with Genesee County and the city of Flint, the portion of the 72-inch transmission main (pipeline) that was taken out of service, while the Flint Water Treatment Plant treated water from the Flint River, was flushed and disinfected in accordance to AWWA Standard C651-14. Two sets of samples were collected from two locations 16 hours apart for total coliform analysis. The city of Flint and Genesee County have informed the DEQ that both sets of samples were non-detect for total coliform. Based upon the disinfection procedure and the absence of total coliform from both sets of samples, the unused portion of the pipeline may be placed into service.

- The initial meeting with the city of Flint has been confirmed and scheduled to take place at the Flint City Hall today at 10:00 a.m. In attendance will be representatives from DEQ, DLARA, DHHS, and the city of Flint. The meeting will cover progress by each partner to date, along with a discussion of action items for next week and the following:
  - Get update on service line index card conversion and identify where partial replacements exist
  - Make sure DHHS gets information so they can cross reference

- Due to scheduling conflicts, the tour of the Flint Water Treatment Plant has been postponed until the week of October 19.

- The city of Flint has been contacted regarding the delivery of homeowner samples, and it was agreed that the current method of sample delivery was mutually beneficial and that the practice would remain in place.

- The city of Flint has been contacted, and they have agreed to forward all lead testing requests by businesses directly to the DEQ laboratory. The DEQ laboratory contact information has been provided, and the city of Flint has distributed this information to appropriate staff.

Additional action:

A meeting has been requested between the DEQ and the Genesee County Health Department (GCHD). A request to meet has been sent along with a list of proposed agenda items. A proposal for weekly meetings either by phone or in person has been made to GCHD so as to strengthen our partnership with them.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
Cell: [redacted]
October 16, 2015

From: Wyant, Dan (DEQ)
Sent: Monday, October 19, 2015 3:13 PM
To: Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc: Wyant, Dan (DEQ); Dickinson, Sarah (GOV)
Subject: 2015-10-19 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: 2015-10-19 Action Steps Week of October 19-23.pdf; 2015-10-19 Flint Drinking Water Action Plan Update.pdf

Importance: High

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of October 19-23, 2015
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 19-23

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	
2.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	To be scheduled for week of 10/19/15; waiting on confirmation from Flint
3.	Figure out number of samples from schools and child care facilities	DEQ	Jim Sygo Pat Cook Steve Busch	
4.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting to be scheduled for week of 10/19/15
5.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	
6.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	
7.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	
8.	$1 million for DEQ Laboratory billing code	DEQ	Maggie Pallone George Krisztian	
9.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
10.	Develop letter to schools	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
11.	Finalize sampling protocol	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
12.	Confirm school sampling logistics	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
13.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
14.	Complete Non-Transient Non-Community Water Supply letter	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
15.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
16.	ODWMA staff observe a DLARA plumbing assessment	DEQ and DLARA	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
17.	Develop sample form and chain of custody document	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
18.	Provide Director Wyant with revised Part 54 language	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
19.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	
20.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
21.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
22.	Provide city of Flint updated monitoring schedule based on Detroit Water and Sewerage Department (DWSD)/Great Lakes Water Authority (GLWA) service	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
23.	Contact city of Flint and Genesee County daily for DWSD connection status updates	DEQ, Flint, and Genesee County	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
24.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	
25.	Verify city of Flint distribution operations under DWSD/GLWA service	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
26.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
27.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
28.	Develop childcare facility guidance or review DHHS related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- The Flint pipeline is ready and has been placed into service. Water from the Great Lakes Water Authority began flowing on Friday, October 16.

- Continued working with Karegnondi Water Authority toward addressing the construction bottlenecks.

- The corrosion control proposal was received electronically from Lockwood, Andrews & Newnam, Inc. (LAN), Flint's consultant, on October 16 (without 399 application). Staff is reviewing the proposal and preparing comments. The proposal was forwarded to EPA for their review, with comments requested by October 19. EPA acknowledged receipt of the proposal. On October 16 LAN hand delivered a full-sized set of the proposal, along with a signed permit application.

- The city of Flint provided information during the initial coordination meeting that approximately 25% of the index card conversion has taken place. The cards have been given to the University of Michigan-Flint for entry into GIS. The city of Flint has indicated that this is a slow process, and they are looking at ways to speed up the process. This is a manually intensive process, and they lack the resources to accomplish the task faster.

- The city of Flint will provide a link to the GIS mapping, and Howard Croft of the city of Flint gave a short presentation on how to use the GIS mapping program.

Additional Actions:

- George Krisztian and Karen Tommasulo represented the DEQ in the initial weekly coordination meeting with the city of Flint on October 16. Present were representatives from DEQ, DLARA, DHHS, and the city of Flint. Each partner provided a brief synopsis of what their respective group had done the past week, and there was discussion on action steps for the following week. Additional discussion included presenting a unified message, creation of a homeowners water sampling instructions work group, and inclusion of the Genesee County Health Department (GCHD) for the weekly coordination meetings.

- George Krisztian, Karen Tommasulo, and Liane Shekter Smith represented the DEQ in an October 16 meeting with the Flint Community Schools Superintendent, Bilal Tawwab. Also present were representatives from DLARA, DHHS, and the Principals from the first three schools that are going through the plumbing evaluation protocol as well as additional staff from Flint Community Schools. The DEQ provided an overview of the protocol that includes a plumbing

evaluation, subsequent sampling of all faucets and drinking fountains that are used for consumptive purposes, analysis of the samples, consolidation of the data, and then review of the data from a health-based exposure perspective. There was also discussion that the GCHD would be asked to conduct the sampling so that we ensure all aspects of the data are of the highest possible quality. There was also discussion of the need to ensure that the Superintendent's office receives the data along with comments on the data before the data is made public. It was agreed that all partners (DEQ, DLARA, DHHS, the Superintendent, the city of Flint, and GCHD) would all be provided the data along with context before the data was released to the public. It was also agreed that there needed to be coordination with respect to who would be releasing the data to the public.

- George Krisztian, Karen Tommasulo, and Liane Shekter Smith met on October 16 with James Henry of the GCHD. The purpose of the meeting was to:
    - Invite the GCHD to attend the weekly coordination meeting with the city of Flint.
    - Ask if the GCHD would be willing to take the samples for the school plumbing evaluations.
    - Invite Mr. Henry to be part of the homeowners water sampling instructions work group.
    - The GCHD provided a positive response on all three subjects but did indicate that they would need funding to assist with the sampling. GCHD was asked to submit a request to the DEQ so that the question of funding could be addressed formally.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
Cell: [redacted]
October 19, 2015

From: Thelen, Mary Beth (DEQ)
Sent: Tuesday, October 20, 2015 2:18 PM
To: Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc: Dickinson, Sarah (GOV); Wyant, Dan (DEQ)
Subject: 2015-10-20 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: 2015-10-20 Action Steps Week of October 19-23.pdf; 2015-10-20 Flint Drinking Water Action Plan Update.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of October 19-23, 2015
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 19-23

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	
2.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	To be scheduled for week of 10/19/15; waiting on confirmation from Flint
3.	Figure out number of samples from schools and child care facilities	DEQ	Jim Sygo Pat Cook Steve Busch	1,300 samples (13 schools and 100 samples per school)
4.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting to be scheduled for week of 10/19/15
5.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
6.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	
7.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	
8.	$1 million for DEQ Laboratory billing code	DEQ	Maggie Pallone George Krisztian	
9.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
10.	Develop letter to schools	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
11.	Finalize sampling protocol	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Revised draft sampling protocol shared with DLARA, DHHS, EPA, and Genesee County Health Department on 10/19/15 for comment
12.	Confirm school sampling logistics	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
13.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
14.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
15.	ODWMA staff observe a DLARA plumbing assessment	DEQ and DLARA	Steve Busch Pat Cook Mike Prysby	Scheduled for 10/21/15
16.	Develop sample form and chain of custody document	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
17.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Initial comments by EPA received on 10/19/15; further discussions to take place
18.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
19.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
20.	Provide city of Flint updated monitoring schedule based on Detroit Water and Sewerage Department (DWSD)/Great Lakes Water Authority (GLWA) service	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
21.	Contact city of Flint and Genesee County Health Department daily for DWSD connection status updates	DEQ, Flint, and Genesee County Health Department	Jim Sygo Steve Busch Pat Cook Mike Prysby	Switch to DWSD completed on 10/16/15; city of Flint will let DEQ know if they run into any unforeseen issues
22.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	
23.	Verify city of Flint distribution operations under DWSD/GLWA service	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
24.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
25.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
26.	Develop childcare facility guidance or review DHHS related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- On October 16 DEQ staff calculated an estimate for the number of samples that we expect to take per school. During our October 16 meeting with Flint Community Schools representatives, they supported our assumptions. Based on this, we estimate that if we collect 3 samples at each drinking water/cooking tap at each school, we can expect to collect approximately 100 samples per school (13 schools = 1,300 samples). This number is only for the first 13 locations that were identified in the preliminary investigation. A more comprehensive determination of the total number of facilities will be made after the initial pilot of 3 schools is complete.

- Draft language changes for Part 54 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, have been submitted to Maggie Pallone for review before final submission.

- The revised draft sampling protocol was shared with DLARA, DHHS, EPA, and Genesee County Health Department on October 19 for comment.

- DEQ's Office of Drinking Water and Municipal Assistance staff is scheduled to observe DLARA staff conducting a plumbing assessment on October 21.

- Initial comments by EPA regarding Flint's proposed corrosion control treatment plan were received on October 19. EPA's comments in their entirety are included as an attachment. DEQ staff has been instructed to contact EPA on October 20 to get clarification of some of the comments.

- On October 19 George Krisztian contacted Howard Croft, Public Works Director, city of Flint, to find out how the transition to Detroit Water and Sewerage Department (DWSD) was going. Mr. Croft indicated that Flint switched over in a controlled manner so as to minimize disruptions in the infrastructure. He said that the transition went very smoothly and that Flint is on DWSD water 100 percent. Mr. Croft also indicated that they would be doing testing throughout the distribution system and they would be focusing on hardness levels to determine the extent to which the DWSD water had made it through the system. He anticipated that it would be a full week before there was a complete turnover of the source water.

Attachment

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
Cell: [redacted]
October 20, 2015

From: Lytle, Darren [mailto:Lytle.Darren@epa.gov]
Sent: Monday, October 19, 2015 12:05 PM
To: Prysby, Mike (DEQ)
Cc: Schock, Michael; Kempic, Jeffrey; Busch, Stephen (DEQ)
Subject: RE: Flint WTP PH2 SEG4 - Corrosion Control

Mike,

Thank-you for giving us the opportunity to review the city of Flint's corrosion control plan.

We believe it is necessary that Flint boosts orthophosphate dosage. Given that the distribution system has not received orthophosphate in over a year, we expect that orthophosphate will need to be boosted to 1) meet the demand of the distribution system, 2) reach the service lines and other lead-containing components in premise plumbing, and 3) accelerate lead reduction at the consumer's taps. Orthophosphate should preferably be added in the same form as the Detroit source which is phosphoric acid from our understanding. This is the proposed case here, however, a simple test should be performed to make sure that the pH is not impacted in a significant way at the desired target dose.

We have not been able to obtain comprehensive water quality data for the finished water characteristics of the Detroit water that will be fed to Flint, to assess ranges of major chemical characteristic fluctuations. However, based upon the email trail, Detroit water entering the Flint system appears to only contain around 0.4 PO4/L. This concentration range is entirely too low compared to that needed in studies presented and published in the last 20+ years that have focused on lead released directly from lead pipes, and the solubility of the most likely lead orthophosphate pipes scales. We also strongly feel that targeted dose of 0.8 mg PO4/L is also too low, for the very same reason. We would be glad to share with you numerous standard corrosion control and treatment reference works, best practices guides and published results from US and international lead corrosion control field and pilot studies. Secondly, the basis for that target (other communities using Lake Huron source use the same dose) is not scientifically derived nor does it consider water quality and the current state of Flint's distribution system. We have reviewed the original Detroit corrosion study and have seen some of the LCR monitoring data, and besides the fact that it did not directly pertain to this water source, few dosages were tested in the cited 1994 pipe loop study, and the higher dosage than the one implemented in the field currently was more effective. Based on the limited amount of data on the quality of Detroit water, what we know about the history of Detroit corrosion control, we think an orthophosphate residual of 3 to 4 mg PO4/L should be the minimum starting test target residual for pipe passivation. It is likely that, at least initially a higher dosage will be necessary to reach the far ends of the distribution system and sufficiently reduce lead solubility and release from all lead sources. To allow flexibility, we feel the design of the chemical feed and storage systems should be able to consistently deliver a maximum dose of 5 to 6 mg PO4/L, if substantial orthophosphate loss is observed, if the starting dose is set for the desired residual level of 3 to 4 mg/L as PO4. We suggest that jar tests be performed in advance of orthophosphate addition to Detroit water to evaluate the impact of orthophosphate dose on turbidity that could result from interactions between orthophosphate and background Detroit water quality parameters (e.g., aluminum, calcium, etc.).

We want to stress that immediately shifting to Detroit water and adding orthophosphate will not necessarily translate to immediate improvements. Furthermore, this is a change, albeit a return to past conditions. Nonetheless, a period of system upset should be anticipated. The need for a communication strategy and a distribution system plan are critical.

Lastly, we see no mention of a water quality monitoring program. Two programs need to be put in place immediately (before return to Detroit water) to 1) identify lead sources, 2) assess treatment effectiveness against lead release from all of the simultaneously operating mechanisms (solubility, particulate release, galvanic corrosion), and 3) assess orthophosphate levels and stability of water quality in the distribution system.

There are multiple sources of lead in the Flint distribution system to the consumers' taps, such as: pipes; leaded brass; leaded solder; accumulations on old galvanized steel pipes; possibly accumulated on copper or some plastic pipes. It is critical that the fate of orthophosphate in the distribution system is understood, and how effective it is against each type of lead source, so dosing adjustment can be properly made. For this purpose, we recommend that a number of residences throughout Flint that meet the following plumbing criteria, be identified for an assessment of the contribution lead from the different potential service line and interior plumbing sources, through detailed mapping of plumbing materials, lengths, sizes, and location and type of inline devices and faucets using profile sampling. For confidence in interpretation, probably at least 5 sites from each of the configurations will be necessary. The configurations we would estimate to be most important (but should be changed or added to if local construction practice indicates it's necessary): Lead service line, galvanized steel interior plumbing; lead service line, copper with leaded solder joints; lead service line, plastic interior plumbing. It is also possible that interior plumbing may differ from the material used for the customer-side service line segment. We would be glad to discuss the specifics of this sampling effort.
For the purpose of assessing stability of water quality in the distribution system and to inform on orthophosphate residual adjustment, we suggest that 8 to 10 locations in the distribution system be selected to measure pH, alkalinity, orthophosphate, turbidity and iron on a weekly basis. These could be collected from TCR sampling locations, or other readily-accessible buildings, should be located at a distribution of locations in the distribution system and should be collected after a flush sufficiently long to assure that "fresh" distribution system water is being measured. Research has shown that over time, orthophosphate can reduce disinfectant demand associated with corroding metallic distribution system materials. These measurements need to be performed in the field and can simply be done with a portable HACH test kit or spectrophotometer.

A lead sampling plan needs to be in place to access the effectiveness of water change and treatment boost. LCR monitoring sites with confirmed lead service lines can be in the sampling pool. Sampling should consist of a 1 liter first draw sample (LCR sample without 5 minute pre-flush), followed by an additional flushed sample or two depending on profile sample results which is intended to capture major lead source(s). The specific details of this effort need to be worked out by the technical committee as soon as possible. We would gladly work with Flint on establishing a water sampling program to identity and verify lead service line sites. The plan and initial sampling effort should be performed before the switch so that one baseline sample set is collected.

Lastly, our strength does not fall under full-scale pump and chemical feed delivery systems. We would only say that the systems need to be scaled-up in size to accommodate our suggested dosing needs. Also, there is the some discussion about diverting water to the Dort reservoir and an associated orthophosphate feed system. We are not familiar with the reservoir but are wondering if it is an open reservoir?

Of course this is a lot of information to share and we would gladly be available to discuss the technical and scientific basis for our suggestions.
Let us know if you have any questions and thanks again,

Darren and Mike

Darren A. Lytle, Ph.D., P.E.
Branch Chief (Acting)
U.S. Environmental Protection Agency
26 West Martin Luther King Dr.
Cincinnati, Ohio 45268
Phone: (513) 569-7432
Fax: (513) 487-2543
email: lytle.darren@epa.gov

From:	Wyant, Dan (DEQ)
Sent:	Wednesday, October 21, 2015 2:32 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV)
Subject:	2015-10-21 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-10-21 Action Steps Week of October 19-23.pdf; 2015-10-21 Flint Drinking Water Action Plan Update.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of October 19-23, 2015
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 19-23

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	This Action Step has been incorporated as part of the After Action Plan (Action Step #4)
2.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	Scheduled for 10/23/15 at 11:30 a.m.
3.	Figure out number of samples from schools and child care facilities	DEQ	Jim Sygo Pat Cook Steve Busch	1,300 samples (13 schools and 100 samples per school)
4.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting to be scheduled for week of 10/19/15
5.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
6.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	
7.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	
8.	$1 million for DEQ Laboratory billing code	DEQ	Maggie Pallone George Krisztian	
9.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
10.	Develop letter to schools	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	This Action Step has been incorporated into Action Step #13
11.	Finalize sampling protocol	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Revised draft sampling protocol shared with DLARA, DHHS, EPA, and Genesee County Health Department on 10/19/15 for comment
12.	Confirm school sampling logistics	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
13.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	A meeting with the 10 remaining schools is tentatively scheduled for the week of 10/26/15
14.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting
15.	ODWMA staff observe a DLARA plumbing assessment	DEQ and DLARA	Steve Busch Pat Cook Mike Prysby	Initial plumbing assessment is scheduled for 10/23/15; sampling to occur on 10/24/15
16.	Develop sample form and chain of custody document	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ Laboratory has created a fillable PDF form for use in the school sampling protocol

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
17.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Conference call with EPA held on 10/20/15 to discuss comments
18.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Construction permit is in process
19.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
20.	Provide city of Flint updated monitoring schedule based on Detroit Water and Sewerage Department (DWSD)/Great Lakes Water Authority (GLWA) service	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
21.	Contact city of Flint and Genesee County Health Department daily for DWSD connection status updates	DEQ, Flint, and Genesee County Health Department	Jim Sygo Steve Busch Pat Cook Mike Prysby	Switch to DWSD completed on 10/16/15; city of Flint will let DEQ know if they run into any unforeseen issues
22.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	
23.	Verify city of Flint distribution operations under DWSD/GLWA service	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
24.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
25.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
26.	Develop childcare facility guidance or review DHHS related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- Action Step #1 has been incorporated into the After Action Plan (Action Step #4).

- It was determined that the information in Action Step #10 would be communicated better in person and has, therefore, been incorporated into Action Step #13.

- DEQ staff has tentatively identify the week of October 26 to meet with representatives from the remaining 10 locations in the Flint Community Schools who were not present at the October 16 meeting at the Superintendent's office.

- DEQ staff has contacted DHHS to request a meeting regarding lead education materials for schools.

- The first plumbing assessment has been scheduled for Friday, October 23. The subsequent sampling of the first facility has been scheduled for Saturday, October 24. This decision was made jointly among DEQ, DLARA, and DHHS in an effort to ensure that sampling staff could properly evaluate the sampling protocol without the added pressure of completing the sampling process before students arrived on-site.

- The DEQ Laboratory has created a fillable PDF form for use in the school sampling protocol. This form was created to streamline the information gathering process. The form was submitted for review by staff in DEQ, DHHS, and DLARA, and comments were subsequently incorporated. The form is now complete and ready for use.

- The corrosion control treatment plan (CCTP) and permit application were received late last Friday, October 16, and were reviewed. Our review comments were provided to Flint's consultant [Lockwood, Andrews & Newnam, Inc. (LAN)]. The CCTP was forwarded to EPA on October 16, and their comments were received on October 19. A conference call was held on October 20 between our staff and Darren Lytle and Michael Schock of EPA to discuss the main comments (EPA's and DEQ's) to confirm that both agencies concur with the design and proposed corrosion control dosages. We are currently preparing a revised set of comments, based on our discussion with EPA. The revised comments will be sent to EPA to confirm concurrence before sending to LAN.

- An Act 399 permit will be issued to the city of Flint to install corrosion control treatment following receipt of revised plans, specs, and – as needed – a permit application that addresses the revised review comments.

- DEQ staff has contacted DHHS to schedule a meeting to discuss the development of childcare facility guidance. This guidance will be similar in nature to what is being done in schools but will be tailored to address the specific

concerns with younger children and the smaller plumbing infrastructure of typical childcare facilities.

Additional Actions:

- Standing meetings with the city of Flint have been scheduled for Fridays at 10:00 a.m. These meetings have been scheduled through December 18. In addition, a tour of the Flint Water Treatment Plant has been scheduled for October 23. The DEQ be taking video footage of the tour, showing the coordinated efforts being taken by the city of Flint, DEQ, DHHS, and DLARA. Genesee County Health Department (GCHD) has been invited to the Friday meetings as well as the tour, and GCHD is in the process of determining if they can participate.

- A meeting was held between staff from the DEQ, DLARA, and DHHS to discuss details regarding the flow and coordination of efforts for the school sampling protocol. It was mutually agreed that it was best to only do one school at first so that we can ensure that the process runs smoothly from partner to partner. The first plumbing evaluation will be done at Freeman Elementary School on Friday, October 23. Steve Busch of the DEQ will accompany staff from DLARA to answer questions they might have during their plumbing evaluations. The subsequent water sampling effort will take place the next day, on Saturday, October 24. It was agreed that taking the samples on Saturday would allow staff to be able to evaluate the sampling process without the added pressure of ensuring that the sampling was complete before students arrived at the building.

- DEQ Director Dan Wyant, Jim Sygo, George Krisztian, and Karen Tommasulo held a conference call with Dr. Susan Hedman, EPA's Regional Administrator, and other representatives from EPA to discuss the EPA's formation of the Flint Safe Drinking Water Task Force. The purpose of the Task Force is to provide one-stop shopping for technical assistance for the optimization of corrosion controls for the switch from Detroit Water and Sewerage Department to the Karegnondi Water Authority. EPA requested a point of contact for the DEQ, and Director Wyant suggested Chief Deputy Director Jim Sygo. EPA agreed that this was an appropriate choice and requested a formal letter indicating Chief Deputy Director Sygo as the point of contact.

- DHHS has indicated that the total water filter/pitcher distribution for the period of October 6 through October 20 was 9,373 units.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
October 21, 2015

From: Bedan, Morgan (GOV)
Sent: Wednesday, October 21, 2015 2:33 PM
To: Dickinson, Sarah (GOV)
Subject: Fwd: 2015-10-21 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: 2015-10-21 Action Steps Week of October 19-23.pdf; ATT00001.htm; 2015-10-21 Flint Drinking Water Action Plan Update.pdf; ATT00002.htm

Can you put into one doc and send back? Thanks!

Sent from my iPhone

Begin forwarded message:

From: "Wyant, Dan (DEQ)" <WyantD@michigan.gov>
Date: October 21, 2015 at 2:31:54 PM EDT
To: "Scott, Allison (GOV)" <scotta12@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Emmitt, Beth (GOV)" <emmittb@michigan.gov>, "Bedan, Morgan (GOV)" <BedanM@michigan.gov>
Cc: "Wyant, Dan (DEQ)" <WyantD@michigan.gov>, "Dickinson, Sarah (GOV)" <DickinsonS@michigan.gov>
Subject: 2015-10-21 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of October 19-23, 2015
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 19-23

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	This Action Step has been incorporated as part of the After Action Plan (Action Step #4)
2.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	Scheduled for 10/23/15 at 11:30 a.m.
3.	Figure out number of samples from schools and child care facilities	DEQ	Jim Sygo Pat Cook Steve Busch	1,300 samples (13 schools and 100 samples per school)
4.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting to be scheduled for week of 10/19/15
5.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
6.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	
7.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	
8.	$1 million for DEQ Laboratory billing code	DEQ	Maggie Pallone George Krisztian	
9.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
10.	Develop letter to schools	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	This Action Step has been incorporated into Action Step #13
11.	Finalize sampling protocol	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Revised draft sampling protocol shared with DLARA, DHHS, EPA, and Genesee County Health Department on 10/19/15 for comment
12.	Confirm school sampling logistics	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
13.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	A meeting with the 10 remaining schools is tentatively scheduled for the week of 10/26/15
14.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting
15.	ODWMA staff observe a DLARA plumbing assessment	DEQ and DLARA	Steve Busch Pat Cook Mike Prysby	Initial plumbing assessment is scheduled for 10/23/15; sampling to occur on 10/24/15
16.	Develop sample form and chain of custody document	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ Laboratory has created a fillable PDF form for use in the school sampling protocol

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
17.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Conference call with EPA held on 10/20/15 to discuss comments
18.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Construction permit is in process
19.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
20.	Provide city of Flint updated monitoring schedule based on Detroit Water and Sewerage Department (DWSD)/Great Lakes Water Authority (GLWA) service	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
21.	Contact city of Flint and Genesee County Health Department daily for DWSD connection status updates	DEQ, Flint, and Genesee County Health Department	Jim Sygo Steve Busch Pat Cook Mike Prysby	Switch to DWSD completed on 10/16/15; city of Flint will let DEQ know if they run into any unforeseen issues
22.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	
23.	Verify city of Flint distribution operations under DWSD/GLWA service	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
24.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
25.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
26.	Develop childcare facility guidance or review DHHS related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- Action Step #1 has been incorporated into the After Action Plan (Action Step #4).

- It was determined that the information in Action Step #10 would be communicated better in person and has, therefore, been incorporated into Action Step #13.

- DEQ staff has tentatively identify the week of October 26 to meet with representatives from the remaining 10 locations in the Flint Community Schools who were not present at the October 16 meeting at the Superintendent's office.

- DEQ staff has contacted DHHS to request a meeting regarding lead education materials for schools.

- The first plumbing assessment has been scheduled for Friday, October 23. The subsequent sampling of the first facility has been scheduled for Saturday, October 24. This decision was made jointly among DEQ, DLARA, and DHHS in an effort to ensure that sampling staff could properly evaluate the sampling protocol without the added pressure of completing the sampling process before students arrived on-site.

- The DEQ Laboratory has created a fillable PDF form for use in the school sampling protocol. This form was created to streamline the information gathering process. The form was submitted for review by staff in DEQ, DHHS, and DLARA, and comments were subsequently incorporated. The form is now complete and ready for use.

- The corrosion control treatment plan (CCTP) and permit application were received late last Friday, October 16, and were reviewed. Our review comments were provided to Flint's consultant [Lockwood, Andrews & Newnam, Inc. (LAN)]. The CCTP was forwarded to EPA on October 16, and their comments were received on October 19. A conference call was held on October 20 between our staff and Darren Lytle and Michael Schock of EPA to discuss the main comments (EPA's and DEQ's) to confirm that both agencies concur with the design and proposed corrosion control dosages. We are currently preparing a revised set of comments, based on our discussion with EPA. The revised comments will be sent to EPA to confirm concurrence before sending to LAN.

- An Act 399 permit will be issued to the city of Flint to install corrosion control treatment following receipt of revised plans, specs, and – as needed – a permit application that addresses the revised review comments.

- DEQ staff has contacted DHHS to schedule a meeting to discuss the development of childcare facility guidance. This guidance will be similar in nature to what is being done in schools but will be tailored to address the specific

concerns with younger children and the smaller plumbing infrastructure of typical childcare facilities.

Additional Actions:

- Standing meetings with the city of Flint have been scheduled for Fridays at 10:00 a.m. These meetings have been scheduled through December 18. In addition, a tour of the Flint Water Treatment Plant has been scheduled for October 23. The DEQ be taking video footage of the tour, showing the coordinated efforts being taken by the city of Flint, DEQ, DHHS, and DLARA. Genesee County Health Department (GCHD) has been invited to the Friday meetings as well as the tour, and GCHD is in the process of determining if they can participate.

- A meeting was held between staff from the DEQ, DLARA, and DHHS to discuss details regarding the flow and coordination of efforts for the school sampling protocol. It was mutually agreed that it was best to only do one school at first so that we can ensure that the process runs smoothly from partner to partner. The first plumbing evaluation will be done at Freeman Elementary School on Friday, October 23. Steve Busch of the DEQ will accompany staff from DLARA to answer questions they might have during their plumbing evaluations. The subsequent water sampling effort will take place the next day, on Saturday, October 24. It was agreed that taking the samples on Saturday would allow staff to be able to evaluate the sampling process without the added pressure of ensuring that the sampling was complete before students arrived at the building.

- DEQ Director Dan Wyant, Jim Sygo, George Krisztian, and Karen Tommasulo held a conference call with Dr. Susan Hedman, EPA's Regional Administrator, and other representatives from EPA to discuss the EPA's formation of the Flint Safe Drinking Water Task Force. The purpose of the Task Force is to provide one-stop shopping for technical assistance for the optimization of corrosion controls for the switch from Detroit Water and Sewerage Department to the Karegnondi Water Authority. EPA requested a point of contact for the DEQ, and Director Wyant suggested Chief Deputy Director Jim Sygo. EPA agreed that this was an appropriate choice and requested a formal letter indicating Chief Deputy Director Sygo as the point of contact.

- DHHS has indicated that the total water filter/pitcher distribution for the period of October 6 through October 20 was 9,373 units.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
October 21, 2015

From:	Wyant, Dan (DEQ)
Sent:	Thursday, October 22, 2015 12:39 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV)
Subject:	2015-10-22 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-10-22 Action Steps Week of October 19-23.pdf; 2015-10-22 Flint Drinking Water Action Plan Update.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of October 19-23, 2015
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 19-23

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	This Action Step has been incorporated as part of the After Action Plan (Action Step #4)
2.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	Scheduled for 10/23/15 at 11:30 a.m.
3.	Figure out number of samples from schools and child care facilities	DEQ	Jim Sygo Pat Cook Steve Busch	1,300 samples (13 schools and 100 samples per school)
4.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting scheduled for 10/22/15
5.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
6.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	Panel created and press release issued on 10/21/15
7.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	
8.	$1 million for DEQ Laboratory billing code	DEQ	Maggie Pallone George Krisztian	Billing codes created on 10/21/15
9.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
10.	Develop letter to schools	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	This Action Step has been incorporated into Action Step #13
11.	Finalize sampling protocol	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Comments received from EPA's Flint Safe Drinking Water Task Force (Task Force); DEQ staff continuing to finalize protocol
12.	Confirm school sampling logistics	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Logistics have been finalized for the initial sampling scheduled for 10/24/15
13.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	A meeting with the 10 remaining schools is tentatively scheduled for the week of 10/26/15
14.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting
15.	ODWMA staff observe a DLARA plumbing assessment	DEQ and DLARA	Steve Busch Pat Cook Mike Prysby	Initial plumbing assessment is scheduled for 10/23/15; sampling to occur on 10/24/15
16.	Develop sample form and chain of custody document	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ Laboratory has created a fillable PDF form for use in the school sampling protocol

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
17.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Conference call with EPA held on 10/20/15 to discuss comments
18.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Construction permit is in process
19.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ staff is reviewing and seeking clarification on comments received from EPA's Task Force
20.	Provide city of Flint updated monitoring schedule based on Detroit Water and Sewerage Department (DWSD)/Great Lakes Water Authority (GLWA) service	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
21.	Contact city of Flint and Genesee County Health Department daily for DWSD connection status updates	DEQ, Flint, and Genesee County Health Department	Jim Sygo Steve Busch Pat Cook Mike Prysby	Switch to DWSD completed on 10/16/15; city of Flint will let DEQ know if they run into any unforeseen issues
22.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Monitoring letter expected to be mailed on 10/22/15
23.	Verify city of Flint distribution operations under DWSD/GLWA service	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
24.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
25.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
26.	Develop childcare facility guidance or review DHHS related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- The initial meeting for the internal After Action Plan is scheduled for October 22. The purpose of the meeting is to define the scope of the internal review, create a detailed time line, connect all communications together to determine where communications could have been improved, and create a list of lessons learned and action steps moving forward.

- Madhu Anderson has provided information for the creation of an external After Action Review Panel. The Panel members have been selected, and a press release was issued by the Governor's office on October 21.

- The DEQ Laboratory, working in conjunction with MDOT's Accounting Services Division, has created the necessary billing codes to allow payment for the lead and copper samples from the city of Flint to be processed.

- The EPA's Flint Safe Drinking Water Task Force (Task Force) has provided comments to staff in the Office of Drinking Water and Municipal Assistance (ODWMA) on the sampling protocol. These comments are being reviewed, and ODWMA staff is continuing to finalize the protocol.

- The logistics for the initial plumbing evaluation and subsequent water sampling have been finalized among staff from DEQ, DLARA, and DHHS. The plumbing inspection is scheduled for Friday, October 23, and the water samples will be taken on Saturday, October 24.

- DEQ staff is responding to comments on the corrosion control proposal made by the EPA's Task Force. DEQ staff is following up on questions raised during the October 20 conference call.

- A monitoring schedule letter is expected to be mailed on October 22. The monitoring schedule addresses the change back to a customer supply of the Great Lakes Water Authority. A final copy of the letter will be attached to tomorrow's update.

Additional Actions:

- At the request of Representative Sheldon Neeley, George Krisztian contacted Carlita Earl, Principal of the Eagle's Nest Academy. Ms. Earl has formally requested that Eagle's Nest Academy receive a plumbing evaluation and water sampling as outlined in the newly-developed school assessment protocol. Ms. Earl was informed that she would be added to the list of schools being evaluated and that the original 13 Flint Community Schools buildings would be

evaluated first and then the DEQ/DLARA/DHHS would expand the evaluation process to charter schools, parochial schools, and other childcare facilities. Ms. Earl was informed that since the Eagle's Nest Academy serves children in grades K-4 that they would be placed at the top of the list once the evaluations of the original 13 buildings are complete.

- Director Dan Wyant, Chief Deputy Director Jim Sygo, and George Krisztian met with a group of pastors and citizens who came to Constitution Hall to voice their concerns regarding the water in Flint. The discussion lasted for approximately one hour, and the topics included a history of events, questions regarding how decisions were made, and the plan moving forward. The group indicated that they had read a great deal in the media and were interested in finding out what DEQ's perspective of the situation was. The questions were tough, but the conversation was very respectful. The group was informed that an independent group external to the DEQ would be conducting an After Action Review, and this information seemed to be well-received.

- Shelly Edgerton of DLARA spoke to Eric Swanson of DTMB, who is going to call Howard Croft, Public Works Director, city of Flint, about the GIS program that the city of Flint is trying to run. Eric will follow up with Shelly after the conversation. In addition, DLARA will be meeting again with the city of Flint.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
October 22, 2015

From: Bedan, Morgan (GOV)
Sent: Thursday, October 22, 2015 1:25 PM
To: Dickinson, Sarah (GOV)
Subject: Fwd: 2015-10-22 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: 2015-10-22 Action Steps Week of October 19-23.pdf; ATT00001.htm; 2015-10-22 Flint Drinking Water Action Plan Update.pdf; ATT00002.htm

Can you frow deez into one and send to me

Sent from my iPhone

Begin forwarded message:

> **From:** "Wyant, Dan (DEQ)" <WyantD@michigan.gov>
> **Date:** October 22, 2015 at 12:39:13 PM EDT
> **To:** "Scott, Allison (GOV)" <scotta12@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Emmitt, Beth (GOV)" <emmittb@michigan.gov>, "Bedan, Morgan (GOV)" <BedanM@michigan.gov>
> **Cc:** "Wyant, Dan (DEQ)" <WyantD@michigan.gov>, "Dickinson, Sarah (GOV)" <DickinsonS@michigan.gov>
> **Subject: 2015-10-22 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED**
>
> Dear Governor's Office:
>
> Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.
>
> 1. Action Steps Updated Document for the week of October 19-23, 2015
> 2. Flint Drinking Water Action Plan Update
>
> Thank you.
>
> Dan Wyant
> Director

City of Flint Water
Action Steps for Week of October 19-23

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	This Action Step has been incorporated as part of the After Action Plan (Action Step #4)
2.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	Scheduled for 10/23/15 at 11:30 a.m.
3.	Figure out number of samples from schools and child care facilities	DEQ	Jim Sygo Pat Cook Steve Busch	1,300 samples (13 schools and 100 samples per school)
4.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting scheduled for 10/22/15
5.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
6.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	Panel created and press release issued on 10/21/15
7.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	
8.	$1 million for DEQ Laboratory billing code	DEQ	Maggie Pallone George Krisztian	Billing codes created on 10/21/15
9.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
10.	Develop letter to schools	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	This Action Step has been incorporated into Action Step #13
11.	Finalize sampling protocol	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Comments received from EPA's Flint Safe Drinking Water Task Force (Task Force); DEQ staff continuing to finalize protocol
12.	Confirm school sampling logistics	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Logistics have been finalized for the initial sampling scheduled for 10/24/15
13.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	A meeting with the 10 remaining schools is tentatively scheduled for the week of 10/26/15
14.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting
15.	ODWMA staff observe a DLARA plumbing assessment	DEQ and DLARA	Steve Busch Pat Cook Mike Prysby	Initial plumbing assessment is scheduled for 10/23/15; sampling to occur on 10/24/15
16.	Develop sample form and chain of custody document	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ Laboratory has created a fillable PDF form for use in the school sampling protocol

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
17.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Conference call with EPA held on 10/20/15 to discuss comments
18.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Construction permit is in process
19.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ staff is reviewing and seeking clarification on comments received from EPA's Task Force
20.	Provide city of Flint updated monitoring schedule based on Detroit Water and Sewerage Department (DWSD)/Great Lakes Water Authority (GLWA) service	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
21.	Contact city of Flint and Genesee County Health Department daily for DWSD connection status updates	DEQ, Flint, and Genesee County Health Department	Jim Sygo Steve Busch Pat Cook Mike Prysby	Switch to DWSD completed on 10/16/15; city of Flint will let DEQ know if they run into any unforeseen issues
22.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Monitoring letter expected to be mailed on 10/22/15
23.	Verify city of Flint distribution operations under DWSD/GLWA service	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
24.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
25.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
26.	Develop childcare facility guidance or review DHHS related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- The initial meeting for the internal After Action Plan is scheduled for October 22. The purpose of the meeting is to define the scope of the internal review, create a detailed time line, connect all communications together to determine where communications could have been improved, and create a list of lessons learned and action steps moving forward.

- Madhu Anderson has provided information for the creation of an external After Action Review Panel. The Panel members have been selected, and a press release was issued by the Governor's office on October 21.

- The DEQ Laboratory, working in conjunction with MDOT's Accounting Services Division, has created the necessary billing codes to allow payment for the lead and copper samples from the city of Flint to be processed.

- The EPA's Flint Safe Drinking Water Task Force (Task Force) has provided comments to staff in the Office of Drinking Water and Municipal Assistance (ODWMA) on the sampling protocol. These comments are being reviewed, and ODWMA staff is continuing to finalize the protocol.

- The logistics for the initial plumbing evaluation and subsequent water sampling have been finalized among staff from DEQ, DLARA, and DHHS. The plumbing inspection is scheduled for Friday, October 23, and the water samples will be taken on Saturday, October 24.

- DEQ staff is responding to comments on the corrosion control proposal made by the EPA's Task Force. DEQ staff is following up on questions raised during the October 20 conference call.

- A monitoring schedule letter is expected to be mailed on October 22. The monitoring schedule addresses the change back to a customer supply of the Great Lakes Water Authority. A final copy of the letter will be attached to tomorrow's update.

Additional Actions:

- At the request of Representative Sheldon Neeley, George Krisztian contacted Carlita Earl, Principal of the Eagle's Nest Academy. Ms. Earl has formally requested that Eagle's Nest Academy receive a plumbing evaluation and water sampling as outlined in the newly-developed school assessment protocol. Ms. Earl was informed that she would be added to the list of schools being evaluated and that the original 13 Flint Community Schools buildings would be

evaluated first and then the DEQ/DLARA/DHHS would expand the evaluation process to charter schools, parochial schools, and other childcare facilities. Ms. Earl was informed that since the Eagle's Nest Academy serves children in grades K-4 that they would be placed at the top of the list once the evaluations of the original 13 buildings are complete.

- Director Dan Wyant, Chief Deputy Director Jim Sygo, and George Krisztian met with a group of pastors and citizens who came to Constitution Hall to voice their concerns regarding the water in Flint. The discussion lasted for approximately one hour, and the topics included a history of events, questions regarding how decisions were made, and the plan moving forward. The group indicated that they had read a great deal in the media and were interested in finding out what DEQ's perspective of the situation was. The questions were tough, but the conversation was very respectful. The group was informed that an independent group external to the DEQ would be conducting an After Action Review, and this information seemed to be well-received.

- Shelly Edgerton of DLARA spoke to Eric Swanson of DTMB, who is going to call Howard Croft, Public Works Director, city of Flint, about the GIS program that the city of Flint is trying to run. Eric will follow up with Shelly after the conversation. In addition, DLARA will be meeting again with the city of Flint.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
October 22, 2015

From: Muchmore, Dennis (GOV)
Sent: Thursday, October 22, 2015 4:41 PM
To: Wyant, Dan (DEQ); Scott, Allison (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc: Dickinson, Sarah (GOV)
Subject: RE: 2015-10-22 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

Are we sharing any of this with Ananich and Neely?

From: Wyant, Dan (DEQ)
Sent: Thursday, October 22, 2015 12:39 PM
To: Scott, Allison (GOV) <scotta12@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Emmitt, Beth (GOV) <emmittb@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>
Cc: Wyant, Dan (DEQ) <WyantD@michigan.gov>; Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>
Subject: 2015-10-22 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of October 19-23, 2015
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

From:	Wyant, Dan (DEQ)
Sent:	Friday, October 23, 2015 12:07 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS)
Subject:	2015-10-23 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-10-23 Action Steps Week of October 19-23.pdf; 2015-10-23 Flint Drinking Water Action Plan Update.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of October 19-23, 2015
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

P.S. We are adding Shelly Edgerton, DLARA and Linda Dykema, DHHS as a cc to these daily e-mail communications in the future.

City of Flint Water
Action Steps for Week of October 19-23

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	This Action Step has been incorporated as part of the After Action Plan (Action Step #4)
2.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	Scheduled for 10/23/15 at 11:30 a.m.
3.	Figure out number of samples from schools and child care facilities	DEQ	Jim Sygo Pat Cook Steve Busch	1,300 samples (13 schools and 100 samples per school)
4.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting held 10/22/15
5.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
6.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	Panel created and press release issued on 10/21/15
7.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	
8.	$1 million for DEQ Laboratory billing code	DEQ	Maggie Pallone George Krisztian	Billing codes created on 10/21/15
9.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
10.	Develop letter to schools	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	This Action Step has been incorporated into Action Step #13
11.	Finalize sampling protocol	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Held conference call on 10/22/15 with EPA's Flint Safe Drinking Water Task Force to clarify questions on sampling protocol
12.	Confirm school sampling logistics	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Logistics have been finalized for the initial sampling scheduled for 10/24/15
13.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	A meeting with the 10 remaining schools is tentatively scheduled for the week of 10/26/15
14.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting
15.	ODWMA staff observe a DLARA plumbing assessment	DEQ and DLARA	Steve Busch Pat Cook Mike Prysby	Initial plumbing assessment is scheduled for 10/23/15; sampling to occur on 10/24/15
16.	Develop sample form and chain of custody document	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ Laboratory has created a fillable PDF form for use in the school sampling protocol

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
17.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Summary of Flint's corrosion control plan submitted to EPA
18.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Construction permit is in process; proper phosphate dosages confirmed, based on incoming residual to Flint
19.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
20.	Provide city of Flint updated monitoring schedule based on Detroit Water and Sewerage Department (DWSD)/Great Lakes Water Authority (GLWA) service	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Updated monitoring schedule has been completed and signed
21.	Contact city of Flint and Genesee County Health Department daily for DWSD connection status updates	DEQ, Flint, and Genesee County Health Department	Jim Sygo Steve Busch Pat Cook Mike Prysby	Switch to DWSD completed on 10/16/15; city of Flint will let DEQ know if they run into any unforeseen issues
22.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	E-mail sent to Genesee County regarding concerns over soil erosion control measures
23.	Verify city of Flint distribution operations under DWSD/GLWA service	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
24.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
25.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
26.	Develop childcare facility guidance or review DHHS related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- The initial After Action Plan meeting was held on October 22. Topics covered were:
  - The discussion of the roles of each team member
  - The scope of the After Action Plan
  - The time frame in which the After Action Plan is to be completed

  The main components of the After Action Plan are:
  - An After Action Review Summary time line that details critical events in chronological order, asking key questions, and providing explanations for actions taken
  - Implementation of the Governor's 10-point Action Plan
  - An evaluation of if DEQ made mistakes and, if so, what they were
  - An evaluation of lessons learned, defining what we can do better/differently in the future

- Participated on an October 22 conference call with the EPA's Flint Safe Drinking Water Task Force to discuss proposed sampling protocol and the comments received from EPA. Agreed to reconvene a call next week to discuss how the pilot sampling effort goes, what went well, what might need to be adjusted, etc.

- A summary of our discussion with EPA regarding Flint's corrosion control plan was provided to Darren Lytle and Michael Schock of EPA. The summary included confirmation of the actual phosphate dosage from the Detroit Lake Huron Water Treatment Plant.

- Proper dosages are now confirmed, based on incoming phosphate residual at Flint. A product cut-sheet to confirm NSF approval and maximum dose is to be provided shortly. Flint's consultant (Lockwood, Andrews & Newnam, Inc.) will also confirm proper sizing of the feed pumps. Anticipate receiving this information on October 23, which will facilitate issuance of the Act 399 permit.

- An updated monitoring schedule is completed and signed. The schedule will be mailed to the city of Flint on October 23. A copy of the updated monitoring schedule is attached.

- An e-mail was sent to John O'Brien of Genesee County informing him of our concern over improper soil erosion control measures at the pipeline job site and what corrective measures were being taken to avoid a potential halt of construction by the Lapeer County Road Commission. Genesee County has not responded thus far.

Additional Actions:

- A conference call was held among representatives from DEQ/DLARA/DHHS to further discuss ways to ensure that the efforts of all three agencies were coordinated. It was determined that weekly calls providing updates to the group as a whole would be beneficial. DEQ also agreed to copy DLARA and DHHS on their daily update report to the Governor's office.

- Flint Action Plan Coordinator George Krisztian contacted Flint Community Schools Superintendent Bilal Tawwab to obtain permission to allow the *Detroit Free Press* to take footage of the water sampling process to be conducted at Freeman Elementary School on Saturday, October 24. Superintendent Tawwab gave his permission, stating that it would not be an issue since there would not be any students present.

- DLARA completed additional review of documents at the Flint repository to assist with the sequencing at the schools.

- Flint is able to provide DLARA plumbing inspectors with on-site workspace; additional documentation gives greater guidance on locations for plumbing fixtures.

- DLARA received confirmation from DEQ that bottles and necessary equipment will be available for sampling start on Saturday, October 24.

Attachment (Updated Monitoring Schedule)

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
October 23, 2015

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING DISTRICT OFFICE

RICK SNYDER
GOVERNOR

DAN WYANT
DIRECTOR

October 22, 2015

Mr. Brent Wright
City Of Flint – D.P.W
Flint Water Plant
4500 North Dort Highway
Flint, Michigan 48505

WSSN: 02310

Dear Mr. Wright:

SUBJECT: Revised Drinking Water Monitoring Schedule – 2015
Monthly Operation Reports
Siting Plans and Record Keeping

Monitoring Schedule:

Enclosed is your revised Drinking Water Monitoring Schedule for remainder of calendar year 2015 outlining the minimum requirements for your public water supply. Your schedule has been revised based on the City's change in source of its drinking water from the treatment of the Flint River utilizing the City's Water Treatment Plant to the Great Lakes Water Authority/Detroit Water and Sewerage Department. Collect samples early in the monitoring period of the year indicated on the schedule. If you use a private laboratory you are required to report the results to us within the first ten days of the month following the month that you received the results. To receive credit for monitoring, the **"WSSN"** (water supply serial number), the **"Site Code,"** and **"County"** must appear on the sample result. Bottles will NOT be mailed automatically. If you use the Department of Environmental Quality Laboratory, you can order bottles by calling 517-335-8184. Be certain of the United States Environmental Protection Agency sampling and analysis method requirements for hold times.

Monthly Operation Report (MOR) Requirements:

The City shall submit MORs as required under Administrative Rule 1502 (R325.11502). Please note required coliform bacteria monitoring results and associated chlorine residual monitoring shall be submitted to the department within the first 10 days following the end of the required monthly monitoring period. In addition, monthly operation reports shall be submitted to the department during the month following the month for which the monthly operation report was prepared.

Disinfection By-Product Sample Siting Plans:

The City of Flint shall continue routine standard monitoring of disinfection by-products, according to your Disinfection & Disinfectants By-Product (DDBP) plan which identifies 8 sites for routine quarterly monitoring.

Lead and Copper Monitoring Requirements and Site Sample Pool

Please note distribution system monitoring for water quality parameters (WQPs) continues at the expanded set of 25 sites per quarter. Lead and copper monitoring in accordance with the requirements of Administrative Rule 710a (R325.10710a) is being required for the 6 month period between January 1, 2016 and June 30, 2016. The City must ensure its sample site pool is large enough to collect the number of lead and copper tap samples required. All sites from which first draw samples are collected shall be selected from the pool of targeted sampling sites.

The City shall also conduct additional operational monitoring to demonstrate the effectiveness of corrosion control treatment.

Record Keeping:

The City shall maintain all monitoring records in accordance with all applicable requirements under the Administrative Rules including Rule 720a (R325.10720a), Rule 1506 (R325.11506), and Rule 1507 (R325.11507).

The Michigan Safe Drinking Water Act requires certain reports to be submitted to this office each year. Please remember that cross connection reports and annual pumpage reports are due by March 31, and the **Consumer Confidence Report** is due by July 1.

Also enclosed is the document "2015 Monitoring and Reporting Requirements." This provides additional details about monitoring and reporting requirements. If you have any questions, please contact us using the information below.

Michael F. Prysby, P.E., District Engineer
Lansing District Office
Office of Drinking Water and
Municipal Assistance
517-290-8817

Adam Rosenthal, EQA
Lansing District Office
Office of Drinking Water and
Municipal Assistance
517-284-6644

Enclosure
cc/encl: Mr. Robert Bisnick, City Of Flint
Genesee County Health Department

2015 Monitoring Schedule

FLINT, CITY OF **WSSN: 02310**

Collect samples early in the monitoring period. This schedule reflects your expected routine monitoring and is subject to change. To receive credit for monitoring, include the **WSSN, Site Code**, and **County** on your request for analysis form. Collect Bacteriological and Automated Partial Chemistry samples close to the shipping time and send overnight delivery. Send all sample results to your Department of Environmental Quality (DEQ) district office unless you use the DEQ laboratory. Test codes, sample units, and costs are listed to help you complete the DEQ laboratory form. Prices are subject to change without notice. The DEQ laboratory is closed on state holidays.

Location: Distribution System

Sample Type	Collect Samples According to the ...	# Samples/ Frequency	Collect	Site Code	Fee	Unit Number	Test Code
Bacteriological – coliforms	TCR Sampling Site Plan	100/Monthly	**Monthly**	DIST	$16.00	30	BPTC
Chlorine Residual	DBP Monitoring Plan	If serving chlorinated water, measure the residual disinfectant level at the same point and at the same time as the bacteriological sample and report the average to the DEQ.					
Total Trihalomethanes	DBP Monitoring Plan	8/3 months	**During February, May, August and November 2015**	See DBP Monitoring Plan	$65.00	36VO	CXTM
Haloacetic Acids		8/3 months	**During February, May, August and November 2015**	See DBP Monitoring Plan	$130.00	36HA	CXHA
Water Quality Parameters	Representative Sites	25/Quarterly	**Quarterly**	DIST	Various	Various	Various
Lead Copper for Corrosion Control	Lead and Copper Sampling Pool	60/6 months	Between 1/1 and 6/30/2016	DIST	$26.00	36CC	CCUB

Community Water Supply
2015 Monitoring and Reporting Requirements

Please Monitor Early: Collect samples early in the monitoring period (month, quarter, year) of the year indicated on the schedule. Bacteriological and partial chemistry samples should be collected close to the shipping time and sent overnight delivery to assure sample holding times are not exceeded (30 and 48 hour hold times respectively). We also recommend avoiding mailing bacteriological samples immediately preceding or following a holiday because samples tend to exceed the 30 hour hold time. When this occurs, a repeat sample must be collected as soon as possible upon notification.

If you use a private laboratory please report the results to us within the first ten days of the month following the month that you received the results. A list of certified laboratories is available on request. If samples are not collected as indicated on your monitoring schedule, you will incur a monitoring violation and possibly a fine. For information on the fines policy, visit http://michigan.gov/deqwater. Click on Drinking Water, Community Water Supply, and Administrative Fines (under Laws and Rules).

To receive credit for monitoring, you must include the **"WSSN"** (water supply serial number), the **"Site Code,"** and the **"County"** when you submit samples for analysis. Site codes are listed on your monitoring schedule.

Special Instructions If You Use The DEQ Laboratory: Bottles will NOT be mailed automatically. To order bottles, call the DEQ Laboratory at 517-335-8184 or download the form EQP 2301 *Requisition for Water Sample Units* from www.michigan.gov/deq. Click on Key Topics, Laboratory Services, Drinking Water, Obtaining The Necessary Sampling Units, and 'test list'. Please note that the DEQ laboratory is closed on most state holidays. The DEQ laboratory prices are subject to change without notice.

Special Instructions For Automated Partial Chemistry, VOC and TTHM Samples: These sample bottles must be cooled and preserved during shipment to the laboratory. If you use the DEQ laboratory, you will receive the ice pack, acid dropper (if necessary) and small cooler when you request the bottles. Samples must be preserved correctly to be used for compliance purposes. To avoid resampling follow instructions contained with the sample bottle. If you would like more information, contact the DEQ lab, at 517-335-8184, or contact this office.

Cyanide: Previously, supplies that chlorinated the water were waived from monitoring for cyanide. The U.S. EPA now requires all supplies to sample the entry point for cyanide.

UCMR3 Monitoring: You may have monitoring requirements in 2015 under the third Unregulated Contaminant Monitoring Rule (UCMR3). The U.S. EPA will contact you directly if your water supply is required to monitor in 2015. A list of laboratories certified to analyze the samples collected for UCMR3 is available at http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3/upload/lablist.pdf. Contact the U.S. EPA with questions.

Reminder if Lead and Copper Monitoring Due This Year: Provide individual lead tap results to people who receive water from sites that you sampled, even if lead was not detected, within 30 days of learning the results. Send us a certification that you met all the delivery requirements along with a sample copy of the customer notice within 3 months after the end of the monitoring period. Water supplies that failed to distribute the Consumer Notice of Lead Results must include the following statement in their CCR, "During the year, we failed to provide lead results to persons served at the sites that were tested as required by the Lead and Copper Rule." To download the *Lead and Copper Report and Consumer Notice of Lead Result Certificate* in Microsoft Word or PDF format, visit www.michigan.gov/deqwater. Click on Drinking Water, Community Water Supply, and Reporting Forms (under Manuals, Forms & Brochures).

Annual Reports: These reports are due to this office each year.

- The **Cross Connection Report**, due by March 31, describes the status of your local cross connection control program. Manufactured housing communities are exempt from this requirements until 2016.

  Each year, water supplies must submit this report, even if a formal program has not been implemented. If cross connections do not exist in your water system, indicate so on the report. Download the Cross Connection Report form from http://michigan.gov/deqwater. Click on Drinking Water, Community Water Supply, Reporting Forms (under Manuals, Forms & Brochures). Instructions are included with the form.

- The **Annual Pumpage/Usage Report**, due by March 31, is required of water supplies that do not submit monthly operation reports.

  This summary of water pumpage and water use must be submitted by each water supply that does not submit a monthly operation report. To manage our natural resources, pumpage data are compiled to determine water use demands in Michigan. Download the Annual Pumpage/Usage Report form from http://michigan.gov/deqwater. Click on Drinking Water, Community Water Supply, Reporting Forms (under Manuals, Forms & Brochures). Please be sure to indicate the appropriate units on the report (e.g. million gallons or gallons).

- The **Consumer Confidence Report**, due by July 1 to your customers, to your local health department and to this office, describes the quality of the water and characterizes the risks, if any, from exposure to contaminants detected..

  Electronic delivery methods may be used to distribute the CCR to bill-paying customers, provided the method is direct. A paper copy must be delivered to bill-paying customers who request it or known to be unable to receive the CCR electronically. For more information on e-delivery, visit www.michigan.gov/deqwater. Click on Drinking Water, Community Water Supply, Consumer Confidence Report Rule (under Laws and Rules).

From:	Wyant, Dan (DEQ)
Sent:	Monday, October 26, 2015 2:26 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS)
Subject:	2015-10-26 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-10-26 Action Steps Week of October 19-23.pdf; 2015-10-26 Flint Drinking Water Action Plan Update.pdf; MDHHS 10-22-15_Daily Activity Summary.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of October 19-23, 2015
2. Flint Drinking Water Action Plan Update
3. MDHHS's 10-22-15 Daily Activity Summary

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 19-23

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	This Action Step has been incorporated as part of the After Action Plan (Action Step #4)
2.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	Scheduled for 10/23/15 at 11:30 a.m.
3.	Figure out number of samples from schools and child care facilities	DEQ	Jim Sygo Pat Cook Steve Busch	1,300 samples (13 schools and 100 samples per school)
4.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting held 10/22/15
5.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
6.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	Panel created and press release issued on 10/21/15
7.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	
8.	$1 million for DEQ Laboratory billing code	DEQ	Maggie Pallone George Krisztian	Billing codes created on 10/21/15
9.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
10.	Develop letter to schools	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	This Action Step has been incorporated into Action Step #13
11.	Finalize sampling protocol	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Sampling protocol was revised to include comments by EPA
12.	Confirm school sampling logistics	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Logistics have been finalized for the initial sampling scheduled for 10/24/15
13.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	A meeting with the 10 remaining schools is tentatively scheduled for the week of 10/26/15
14.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting
15.	ODWMA staff observe a DLARA plumbing assessment	DEQ and DLARA	Steve Busch Pat Cook Mike Prysby	DEQ staff observed the DLARA plumbing assessment of Freeman Elementary School on 10/23/15
16.	Develop sample form and chain of custody document	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ Laboratory has created a fillable PDF form for use in the school sampling protocol

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
17.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Summary of Flint's corrosion control plan submitted to EPA
18.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Additional discussions are in progress with city of Flint
19.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Comments by DEQ to city of Flint have been provided
20.	Provide city of Flint updated monitoring schedule based on Detroit Water and Sewerage Department (DWSD)/Great Lakes Water Authority (GLWA) service	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Updated monitoring schedule has been completed and signed
21.	Contact city of Flint and Genesee County Health Department daily for DWSD connection status updates	DEQ, Flint, and Genesee County Health Department	Jim Sygo Steve Busch Pat Cook Mike Prysby	Switch to DWSD completed on 10/16/15; city of Flint will let DEQ know if they run into any unforeseen issues
22.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Issues regarding soil erosion controls during construction are being addressed
23.	Verify city of Flint distribution operations under DWSD/GLWA service	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	The switch back to Detroit water has been smooth so far

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
24.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
25.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
26.	Develop childcare facility guidance or review DHHS related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- The sampling protocol was revised to address comments received on October 22 from EPA's Flint Safe Drinking Water Task Force.

- Staff assisted DLARA in conducting a plumbing assessment at Freeman Elementary School. Actions were taken to prepare for sampling to be conducted on Saturday, October 24.

- The information requested by the DEQ was not received on October 23 from Flint's consultant, Lockwood, Andrews & Newnam, Inc. (LAN); thus, the construction permit for phosphate equipment was not issued. DEQ staff discussed with Flint Water Treatment Plant operator Brent Wright and Utilities Superintendent Michael Glascow. Brent confirmed that he needs to provide some of the information regarding the phosphate product to LAN.

- DEQ staff discussed with Michael Glascow and Brent Wright the need for quarterly test runs and monthly operation reporting details while the Flint Water Treatment Plant is in standby mode. Also included the need to report phosphate dosages and phosphate residuals (plant tap and distribution) in the monthly operation report.

- John O'Brien (Genesee County Drain Commissioner's office) contacted DEQ staff in response to our October 22 e-mail. The Lapeer County Road Commission (LCRC) has placed a stop work order on Contract S-4005; however, the Genesee County Drain Commissioner's office contends that the LCRC has no authority to issue a stop work order; thus, work is continuing. DEQ stressed the importance to John of the need to keep the project moving forward and to confirm that the contractor is following proper soil erosion measures and other local guidelines that may apply.

- Based on a discussion with Michael Glascow and Brent Wright, there have not been major distribution system issues or upsets since the switch back to Detroit Water and Sewerage Department. Utility operators were flushing and winterizing hydrants this week and flushing from the Flint Water Treatment Plant to the outside reaches of the distribution system. Phosphate residuals are also being measured twice per week at Flint's bacteria monitoring sites.

Additional Actions:

- Representatives from DEQ, DLARA, and DHHS met on October 23 with Mayor Dayne Walling and Howard Croft from the city of Flint for the weekly update. Each group gave an overview of actions that were taken over the course of the week. The DEQ discussed sample results from homeowners since the offer to

provide free lead and copper testing was made. The DEQ also discussed the school sampling protocol that was developed and would be used on Saturday, October 24, at Freeman Elementary School. DLARA discussed the plumbing assessment of Freeman Elementary School that was being conducted on Friday, October 23. DHHS gave an update on the prioritization schema for blood lead screening that was being conducted for Flint residents, with the highest priority going to individuals with the highest risk, including young children and infants.

- After the weekly coordination meeting, the city of Flint gave a tour of the Flint Water Treatment Plant to coordination committee members from the DEQ, DLARA, and DHHS. The tour provided a complete picture of the treatment process for both sources of water that could potentially be used, including water from the Flint River and treated water coming from Detroit. There was also discussion on how water from the Karegnondi Water Authority would be distributed, along with discussion of the supplemental addition of corrosion control agents.

- On Saturday, October 24, representatives of DEQ and DLARA conducted the first sampling event of Flint schools at Freeman Elementary School. Media from several news agencies were present to cover the initial sampling event and conducted interviews with Karen Tommasulo and footage was taken of the sampling process. The sampling team consisted of seven members, and it took a little over three hours to conduct the entire sampling event. There was a small group of protesters outside of the school who stayed there for approximately an hour and a half, after which they peacefully disbursed.

  After the sampling event, the samples were driven to the DEQ Laboratory and logged into the computer system. The Laboratory's Inorganics Unit Supervisor was contacted and made aware of the status of the samples. The samples were then prepped on Sunday, October 25, and are scheduled for analysis on Monday, October 26.

  Links for media coverage of the sampling event are below:

  http://www.abc12.com/home/headlines/State-begins-extensive-testing-of-water-plumbing-inside-Flint-Community-Schools-336669641.html?device=phone&c=y

  http://nbc25news.com/news/local/mdeq-tests-lead-levels-at-flint-schools

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
October 26, 2015

Flint Water Public Health Response: MDHHS Action Plan Daily Summary

10-22-15

ACTION PLAN: FILTER/FILTER REPLACEMENTS	STATUS
Filter Distribution • Residents may continue to obtain filters from GCCARD (both sites 9-4PM) and MDHHS clients can continue to obtain filters at the two MDHHS office locations or the GCCARD sites. • GCCARD working with UAW plumbers to provide home installs for vulnerable population including homebound, seniors, and dialysis. (Providing $20,000 in kind support). 147 installs completed as of 10-21-2015.	No action indicated, informational only.
Filter Replacement Distribution • The procedure is in place for replacement cartridge distribution including an abbreviated application for residents to apply for and obtain cartridge replacement. Cartridge replacement will occur at same locations as filter sites.	**ACTION:** It is understood that MDHHS has obtained all available replacement cartridges from nationwide supply. Kris S will check with Chris Sanches (DHHS) to determine/verify availability of additional cartridges for purchase if needed. **Estimated completion date: 10-23-15**
NEW ISSUE: Public Education Proper Filter Use • When used improperly, the filters will exceed their capacity limit in a much shorter time frame thereby increasing need for filter replacement much sooner than expected.	**ACTION:** Jen Eisner will work with Hilda McShane to develop NEW public education material about proper use of cartridge AND how to obtain filter replacement cartridges, targeted for release week of October 26 during lead awareness week. This should be included with all filter replacement cartridges. **Estimated Completion date: 10-26-15**
ACTION PLAN: LEAD TESTING IN CHILDREN/HIGH RISK GROUPS	**STATUS**
Testing Protocol: Draft protocol has been completed, undergoing final review. Protocol calls for testing: Priority groups- • Confirmatory venous testing for children who had venous testing (115 children) • Children in day care, Head Start • children attending 3 schools (Freeman, Eisenhower, Brownell) • Children residing in high risk zip codes (03, 04) • All other students Children/parents usual source of primary care. If no usual source of primary care, can obtain testing at GCHD. Mass	**ACTION:** Finalize testing protocol by 10-23-15 (Wells/Peeler) **ACTION:** Share all materials with Medicaid (Wells/Peeler) **ACTION:** Contact MDE regarding sharing student list (Hertel) **ACTION:** Wells/Valacak will schedule a meeting with the Flint Schools superintendent to discuss parent education/ lead testing (Friday, October 23) **ACTION:** The list of kids with elevated blood levels will be cross referenced to see if their household has a filter. (Peeler/Scott)

testing in school setting NOT recommended. Would like to obtain the student list from the three schools and cross reference with our lead testing data to determine children tested/not tested	
Parent education materials have been completed. GCHD has ability to work with their Head Start and Early head start programs to disseminate parent information	**ACTION:** Call with Flint school superintendent, GCHD, and MDHHS scheduled 10-24-15 to discuss dissemination process. Will also contact Kyle Guerrant(MDE). (Hertel) **Estimated Completion date: 10-23-15**
Provider educational material completed. Communication to providers will occur through GCHD and MDHHS networks (GCMS, GCARD, hospitals, etc)	**ACTION:** Need to coordinate with GCHD. **Estimated completion date:** TBD (Wells/Peeler)
Community public education and testing event: Working with GCHD to coordinate public testing and awareness events with health care providers and health plans in the Flint area.	**ACTION:** McLaren Health Plan in conjunction with GCHD hosting a public testing and awareness event on November 5 at the Burton GCHD site. McLaren will have providers on site to perform testing for their members; GCHD onsite to perform testing for all others. Event will also include Medicaid application assistance. **ACTION:** Tony Larocco (GCHD) has contacted Molina, Molina Health interested in sponsoring a similar community testing and awareness event. **Estimated completion date:** confirm Molina date by 10-30-15 (LaRocco-GCHD)
ACTION PLAN: ENVIRONMENTAL INVESTIGATION	
Wes Priem (MDHSS) developed a data collection document that will be in the testing protocol. The document collects additional information that will help expedite the environmental investigation process.	No action indicated, informational only
ACTION PLAN: FUNDING	
10-21-15 Funding for case management nurses will be disseminated to GCHD through new project: *Flint Water*, for $425,000 through the Comprehensive Contract Egrams system, to fund the: Follow-up of Children Reported with Elevated Lead Levels: Case Management Services. GCHD advised to secure approvals for use of these funds and begin procedures to place staff in appropriate positions to conduct the work.	No action indicated, informational only

From:	Wyant, Dan (DEQ)
Sent:	Tuesday, October 27, 2015 2:10 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS)
Subject:	2015-10-27 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-10-27 Action Steps Week of October 26-30.pdf; 2015-10-27 Flint Drinking Water Action Plan Update.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of October 26-30, 2015
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 26-30

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting held 10/22/15
2.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
3.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	Panel created and press release issued on 10/21/15
4.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	
5.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	
6.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	A meeting with the 10 remaining schools is tentatively scheduled for the week of 10/26/15
7.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	Meeting scheduled for 10/27/15
8.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Summary of Flint's corrosion control plan submitted to EPA

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
9.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Remaining items due are anticipated to be provided on 10/27/15
10.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Comments by DEQ to city of Flint have been provided
11.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues; check weekly for status update	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Issues regarding soil erosion controls during construction are being addressed
12.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Nearly 11,000 records received and waiting for review by DEQ staff
13.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
14.	Develop childcare facility guidance or review DHHS related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting
15.	Create a generic school sampling guidance document for statewide distribution; target audience: schools served by municipal water	DEQ and DLARA	Jim Sygo Steve Busch Richard Benzie	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
16.	Confirm plumbing assessment and sampling is scheduled for Brownell K-2 STEM Academy and Eisenhower Elementary School	DEQ and DLARA	Jim Sygo Steve Busch Mike Prysby	Tentatively scheduled for 10/30/15

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- A meeting has been confirmed for October 27 with DHHS to discuss all lead education material for schools.

- DEQ staff discussed with the city of Flint's consultant, Lockwood, Andrews & Newnam, Inc., the remaining items that are needed for issuance of Michigan's Safe Drinking Water Act (Act 399) construction permit. Staff anticipates receiving these items on October 27.

- DEQ staff obtained approximately 10,895 records from the city of Flint's GIS system regarding service line index cards and extracted them into a table format for additional data review. Data review has been initiated by DEQ's Lansing District Office staff.

- DLARA and DEQ staff tentatively plans to conduct plumbing assessments at Brownell K-2 STEM Academy and Eisenhower Elementary School on October 30. DLARA staff will contact the Flint Community Schools' facility administrator to confirm the date and approximate times.

Additional Actions:

- All of the 124 samples that were taken at Freeman Elementary School on Saturday, October 24, were analyzed by the DEQ Laboratory on Monday, October 26. The data is being compiled into a spreadsheet to allow an evaluation of the various sampling points. Initial indications are that there will need to be some replacement of plumbing fixtures, but issues do not seem to exist deeper into the plumbing infrastructure. Further sequential testing will be conducted at select points to verify that water is being drawn from the main.

- DEQ staff met to discuss lessons learned from the sampling event at Freeman Elementary School. A number of observations were made with respect to how to streamline the process. The group agreed to incorporate several of the observations into the sampling protocol. The protocol is being updated to reflect these changes.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
October 27, 2015

From:	Wyant, Dan (DEQ)
Sent:	Wednesday, October 28, 2015 2:36 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS)
Subject:	2015-10-28 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-10-28 Action Steps Week of October 26-30.pdf; 2015-10-28 Flint Drinking Water Action Plan Update.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of October 26-30, 2015
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 26-30

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting held 10/22/15
2.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
3.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	Panel created and press release issued on 10/21/15
4.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	
5.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	
6.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	A meeting with the 10 remaining schools is tentatively scheduled for the week of 10/26/15
7.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	Meeting held on 10/27/15; action items created
8.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Summary of Flint's corrosion control plan submitted to EPA

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
9.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Additional items provided; still need 2 more items
10.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Comments by DEQ to city of Flint have been provided
11.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues; check weekly for status update	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Issues regarding soil erosion controls during construction are being addressed
12.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Cross-referencing process has begun
13.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
14.	Develop childcare facility guidance or review DHHS-related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	Meeting held on 10/27/15; DHHS to provide materials
15.	Create a generic school sampling guidance document for statewide distribution; target audience: schools served by municipal water	DEQ and DLARA	Jim Sygo Steve Busch Richard Benzie	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
16.	Confirm plumbing assessment and sampling is scheduled for Brownell K-2 STEM Academy and Eisenhower Elementary School	DEQ and DLARA	Jim Sygo Steve Busch Mike Prysby	Tentatively scheduled for 10/30/15

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- DEQ staff met with DHHS staff on October 27 to discuss all lead education material for schools, and action items were created.

- On October 27 DEQ's Lansing District Office received updated dosage, pump specifications, and cut-sheets for phosphate product. A quick glance at the submittal shows most of the requested information has been provided, except for the NSF Standard 60 certification and the maximum dose. Staff will cross-reference the NSF Web site to verify proper certification and maximum dose. If acceptable, DEQ staff will proceed with issuance of the Act 399 permit. Otherwise, the city of Flint's consultant will need to provide the DEQ with the NSF Standard 60 certification and maximum dose information.

- DEQ staff has cross-referenced 46 of the 326 historical lead and copper monitoring sampling sites with the 10,895 service line index card information records available to date.

- DEQ staff met with DHHS staff to review and further develop childcare facility guidance and incorporate drinking water exposure information. Guidance is being provided by DHHS specific to the Genesee County emergency order, and separate guidance for statewide use will also be developed.

Additional Actions:

- Preliminary follow-up review of sampling event at Freeman Elementary School: DEQ and DLARA staff met and reviewed outlet/tap materials to correlate with sample results. DEQ staff contacted Jim Henry, Genesee County Health Department, to confirm the location of screening samples. The draft write-up is to be completed by DEQ staff on October 28.

- The weekly meeting between DEQ, DLARA, and DHHS was held. Discussion topics included a review of the results for Freeman Elementary School, along with a discussion of what the results meant and how the data would be presented to the Flint Community Schools Superintendent so that the information could be used to create an action plan for the school. Discussion also included working out the logistics for conducting the plumbing evaluation and subsequent sampling for the other two elementary schools that had results above the action level during the initial screen of 13 schools. Plans are in process to conduct these two plumbing evaluations on Friday, October 30, with the sampling to take place on Saturday, October 31.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
October 28, 2015

From:	Wyant, Dan (DEQ)
Sent:	Thursday, October 29, 2015 1:11 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS)
Subject:	2015-10-29 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-10-29 Flint Drinking Water Action Plan Update.pdf; 2015-10-29 Action Steps Week of October 26-30.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of October 26-30, 2015
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- Discussion held on October 28 with EPA's Flint Safe Drinking Water Task Force (Task Force) concerning monitoring results at Freeman Elementary School. A report that summarizes the results of the samples collected from the school for the lead analysis has been drafted.

- DEQ staff discussed the items needed for the corrosion control treatment plan. An outline of a Corrosion Treatment Operation letter has been prepared. The letter will be finalized and sent to the city of Flint. Water quality parameter monitoring and laboratory certification was also discussed with the EPA's Task Force.

- DEQ staff completed the review and verified NSF Standard 60 conformance, proper dosage, and feed pump sizing. The Act 399 permit for the installation of the phosphate feed equipment was issued on October 28.

- Coordinated with the DEQ Laboratory to create and produce the "Request for Water Analysis Forms" and the bottle order needed for sampling at Brownell K-2 STEM Academy and Eisenhower Elementary School on Saturday, October 31.

Additional Action:

DEQ Director Dan Wyant and DEQ staff met with DHHS Director Nick Lyon and DHHS staff to discuss coordination of the messaging of data related to Flint water and blood samples. It was agreed that it was important to ensure that the water and blood data are put into context with respect to each other. Discussion also involved creating a message that discusses what lead concentrations in water mean from a regulatory and from a health-based perspective. Current regulations are not in step with current health-based exposure models, so additional work needs to be done to ensure a comprehensive message that is clear.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
October 29, 2015

City of Flint Water
Action Steps for Week of October 26-30

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting held 10/22/15
2.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
3.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	Panel created and press release issued on 10/21/15
4.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	
5.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	
6.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	A summary report for Freeman Elementary School has been drafted
7.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	Meeting held on 10/27/15; action items created
8.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Meeting held on 10/28/15 to discuss comments

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
9.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Act 399 permit issued 10/28/15
10.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Comments by DEQ to city of Flint have been provided
11.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues; check weekly for status update	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Issues regarding soil erosion controls during construction are being addressed
12.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Cross-referencing process has begun
13.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
14.	Develop childcare facility guidance or review DHHS-related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	Meeting held on 10/27/15; DHHS to provide materials
15.	Create a generic school sampling guidance document for statewide distribution; target audience: schools served by municipal water	DEQ and DLARA	Jim Sygo Steve Busch Richard Benzie	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
16.	Confirm plumbing assessment and sampling is scheduled for Brownell K-2 STEM Academy and Eisenhower Elementary School	DEQ and DLARA	Jim Sygo Steve Busch Mike Prysby	Sampling materials have been requested from DEQ Laboratory

From:	Wyant, Dan (DEQ)
Sent:	Friday, October 30, 2015 11:29 AM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS)
Subject:	2015-10-30 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-10-30 Action Steps Week of October 26-30.pdf; 2015-10-30 Flint Drinking Water Action Plan Update.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of October 26-30, 2015
2. Flint Drinking Water Action Plan Update

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 26-30

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Conduct After Action Plan	DEQ	George Krisztian	Meeting held on 10/29/15 to discuss time line
2.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
3.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	Panel created and press release issued on 10/21/15
4.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	Negotiations underway to contract with the Genesee County Health Department
5.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	
6.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	A summary report for Freeman Elementary School has been drafted
7.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	Meeting held on 10/27/15; action items created
8.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Meeting held on 10/28/15 to discuss comments

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
9.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Act 399 permit issued 10/28/15
10.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Comments by DEQ to city of Flint have been provided
11.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues; check weekly for status update	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Issues regarding soil erosion controls during construction are being addressed
12.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Cross-referencing process has begun
13.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
14.	Develop childcare facility guidance or review DHHS-related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	Meeting held on 10/27/15; DHHS to provide materials
15.	Create a generic school sampling guidance document for statewide distribution; target audience: schools served by municipal water	DEQ and DLARA	Jim Sygo Steve Busch Richard Benzie	Final draft of school sampling protocol has been written and is awaiting final review

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
16.	Confirm plumbing assessment and sampling is scheduled for Brownell K-2 STEM Academy and Eisenhower Elementary School	DEQ and DLARA	Jim Sygo Steve Busch Mike Prysby	Sampling materials have been requested from DEQ Laboratory

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- Weekly internal After Action Plan meetings are being held. The topics of discussion for the meeting held on October 29 included a status update of the time line of events. It was agreed that a long-term comprehensive time line needed to be created, but an outline written at a higher level was needed within the next week to present to the Governor's After Action Review Panel. Additional discussion topics included an internal evaluation of the Safe Drinking Water Act, 1976 PA 399, as amended, as well as the federal lead and copper rule to determine what, if any, actions were implemented incorrectly.

- Negotiations between the Genesee County Health Department (GCHD) and the DEQ have begun to set up a contract to utilize GCHD resources to conduct sampling of schools within the Flint Community Schools as well as parochial schools, charter schools, and childcare facilities.

- The final draft of the school sampling protocol has been written and is awaiting final review. This version of the protocol incorporates comments by the EPA and will be used to sample at Eisenhower Elementary School and Brownell K-2 STEM Academy on Saturday October 31. Experiences from the sampling of Freeman Elementary School on Saturday October 24, were used to create the final draft, and experiences from Eisenhower and Brownell will be used to determine if any further changes are required.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
October 30, 2015

From:	Wyant, Dan (DEQ)
Sent:	Monday, November 02, 2015 2:37 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS)
Subject:	2015-11-02 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-11-02 Action Steps Week of October 26-30.pdf; 2015-11-02 Flint Drinking Water Action Plan Update.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of October 26-30, 2015
2. Flint Drinking Water Action Plan Update

Effective today, we will prepare the attached reports to you weekly, every Monday afternoon, for the previous week's actions.

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 26-30

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Conduct After Action Plan	DEQ	George Krisztian	Meeting held on 10/29/15 to discuss time line
2.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
3.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	Panel created and press release issued on 10/21/15
4.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	Negotiations underway to contract with the Genesee County Health Department
5.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	
6.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	A summary report for Freeman Elementary School has been drafted
7.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	Meeting held on 10/27/15; action items created
8.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	EPA's comments were addressed, and a letter was e-mailed to the city of Flint on 10/30/15

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
9.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Act 399 permit issued 10/28/15
10.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Comments by DEQ to city of Flint have been provided
11.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues; check weekly for status update	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Issues regarding soil erosion controls during construction are being addressed
12.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Cross-referencing process has begun
13.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
14.	Develop childcare facility guidance or review DHHS-related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	Meeting held on 10/27/15; DHHS to provide materials
15.	Create a generic school sampling guidance document for statewide distribution; target audience: schools served by municipal water	DEQ and DLARA	Jim Sygo Steve Busch Richard Benzie	Final draft of school sampling protocol has been written and is awaiting final review

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
16.	Confirm plumbing assessment and sampling is scheduled for Brownell K-2 STEM Academy and Eisenhower Elementary School	DEQ and DLARA	Jim Sygo Steve Busch Mike Prysby	Assessments confirmed and complete

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- Comments on the corrosion control treatment plan received late in the day on October 30 from EPA were addressed, and the letter to the city of Flint regarding operational and monitoring conditions related to corrosion control was finalized. A PDF of the letter was e-mailed on October 30 to the city of Flint *et al.*

- Staff from DLARA and DEQ conducted plumbing assessments at both Brownell and Eisenhower Elementary Schools on October 30. Sampling taps were identified and labeled. Based on the plumbing assessment, a sampling sequence was recommended for each school.

Additional Actions:

- DEQ Flint Action Plan Coordinator George Krisztian and DEQ Public Information Officer Karen Tommasulo met with representatives of DLARA, DHHS, and city of Flint officials, including Mayor Dayne Walling, to discuss progress made since the last meeting and to discuss actions to come in the week of November 2. Topics included the issuance of a construction permit that would enable the city of Flint to provide supplemental phosphate addition to the water coming from Detroit. A high level summary regarding the progress of the testing for lead in drinking water in the Flint schools was provided with a subsequent discussion by the group as a whole. Mayor Walling inquired as to how remediation of the schools would be funded, and he was informed that funding was outside the purview of the initial assessment.

- Staff from DEQ and DLARA conducted water sampling at Brownell K-2 STEM Academy and Eisenhower Elementary School on Saturday, October 31. In addition, staff went back to Freeman Elementary School to pull sequential samples as per comments from EPA regarding DEQ's sampling protocol. The sequential samples were also taken at Brownell and Eisenhower. Complete sampling protocols have now been conducted at three Flint schools. There were a total of 374 samples taken at the three schools on October 31.

- As provided by DHHS, the purchased total water filter/pitcher distribution for the period of October 6 through October 29 is 9,880 units.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
November 2, 2015

From:	Wyant, Dan (DEQ)
Sent:	Monday, November 09, 2015 1:10 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS)
Subject:	2015-11-09 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-11-09 Action Steps Week of November 2-6.pdf; 2015-11-09 Flint Drinking Water Action Plan Update.pdf; Freeman Elementary Report Final.pdf; Freeman Elementary Final Lead Results.pdf; Freeman Elementary Final Copper Results.pdf; Flint Home Owner Data by ZIP Code (09-03 thru 11-05-15).pdf; Flint Home Owner Data by Concentration (09-03 thru 11-05-15).pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of November 2-6, 2015
2. Flint Drinking Water Action Plan Update
3. Freeman Elementary Report Final
4. Freeman Elementary Final Lead Results
5. Freeman Elementary Final Copper Results
6. Flint Home Owner Data by ZIP Code
7. Flint Home Owner Data by Concentration

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions.

Morgan, When sending these data results to the Governor, you may want to consider keeping documents 4-7 as separate pdfs for the Governor, in lieu of assembling them all together in one pdf, but I'll make that your call. (Thanks, Mary Beth)

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of November 2-6

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Conduct After Action Plan	DEQ	George Krisztian	Meeting held on 10/29/15 to discuss time line
2.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
3.	Assist After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	Panel created and press release issued on 10/21/15
4.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	Negotiations underway to contract with the Genesee County Health Department
5.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	
6.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	A summary report for Freeman Elementary School has been drafted
7.	Contact DHHS regarding lead education material for schools; provide information as requested by DHHS	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	Meeting held on 10/27/15; action items created
8.	Follow up with city of Flint regarding corrosion control treatment and their plans to address requirements and options provided for in 10/30/15 DEQ letter	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
9.	E-mail city of Flint regarding timing to install corrosion control now that the construction permit has been issued	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	E-mailed city of Flint on 11/4/15; 11/5/15 response indicated equipment to be ordered and plan to start installing feed piping on 11/9/15
10.	Review Monthly Operation Reports (MORs) for Standby Operation of Flint Water Treatment Plant with city of Flint; draft letter to city of Flint documenting Standby Operation requirements	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Letter is drafted and will be sent to city of Flint the week of 11/9/15; MOR review with city of Flint will be conducted during next routine site visit
11.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues; check weekly for status update	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Issues regarding soil erosion controls during construction are being addressed
12.	Continue evaluating city of Flint Service Line Record status and comparison to sampling pool	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Letter requesting additional information/documentation to be provided to city of Flint on 11/9/15
13.	Provide DHHS with any available cross-reference information regarding lead service lines and plumbing materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
14.	Develop childcare facility guidance or review DHHS-related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	Meeting held on 10/27/15; DHHS to provide materials
15.	Develop draft sampling protocol for residential exposure assessment for DHHS	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook	Draft document under development; discussed preliminary plan with DHHS

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
			Mike Prysby	
16.	Make progress on drafting a generic school sampling guidance document for statewide distribution; target audience: schools served by municipal water	DEQ and LARA	Jim Sygo Steve Busch Richard Benzie	Draft document under development to make it an easy-to-read and follow guidance document
17.	Attend 11/5/15 meeting arranged by DHHS regarding residential elevated blood lead investigations and water testing	DEQ and DHHS	Jim Sygo George Krisztian Steve Busch	Done

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

Key Actions:

- The city of Flint has received the necessary building permits to move forward with plans for the supplemental addition of phosphate to water that is coming from the Detroit Water and Sewerage Department. The purpose of the supplemental addition of phosphate is to reestablish the protective coating throughout the distribution system. This protective coating slows the leaching process of lead from service lines, household fixtures, and solder used for connecting copper pipes. The city of Flint has made the purchase of the necessary equipment a high priority and hopes to have the pumps installed and running within the next month.

- The report for Freeman Elementary School that documents and explains the results of the plumbing evaluation conducted by the DEQ and DLARA has been completed and will be distributed on November 9. The report demonstrates that the issues in the school are fixture-specific and that there was no evidence found to suggest that significant lead contamination is occurring deep within the plumbing system. The report will recommend replacement of fixtures that were found to have lead levels exceeding 15 parts per billion. Once a press release has been issued, the report will be posted to the Flint water Web site: www.mi.gov/flintwater.

- Data for residents of the city of Flint have been compiled into spreadsheets that sort the data by ZIP Code and also by concentration. The data to date indicate that the issue of lead contamination is not system-wide but is site specific. Over three quarters of the samples showed lead levels of 5 parts per billion or less and over 91 percent of the samples were at levels of 15 parts per billion or less. These spreadsheets will also be posted to the Flint water Web site.

Positions:

- With respect to the school data and the samples submitted by residents through the free lead testing program, the issue of lead contamination in the water appears to be site specific. In both cases, the water within the distribution system does not appear to be the issue. The contamination appears to be coming from fixtures, solder used to connect copper, and from lead service lines. While the initial results are encouraging and show that the large majority of homes do not have an issue, it is important that residents do not make assumptions. The only way to know if water contains lead is to have it tested.

Concerns:

- The action level of 15 parts per billion that is used in the lead and copper rule (LCR) was set up to determine if a supply was utilizing optimized corrosion controls. It was not meant to serve as a health-based exposure model. The

DEQ will be releasing data on Freeman Elementary School and residential data on November 9. The DHHS is currently working on evaluating blood lead levels on children in the city of Flint. It is important that when the DHHS is ready to present their data that the message they present does not inadvertently contradict information provided by the DEQ. While it is recognized that the ultimate goal is to have no detectable amount of lead in the water, this goal may not be practical as the DEQ utilizes the criteria as specified by the U.S. Environmental Protection Agency (EPA).

- The State of Michigan is being criticized as a result of recent information coming to light that a significant number of samples were not collected from proper sampling locations as part of the sampling program in the city of Flint to demonstrate compliance with the LCR under Michigan's Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). Recently the city of Flint began to electronically convert customer service line information. This effort, along with statements by some of the city of Flint's certified operators, directly conflicts with information certified by the city of Flint in documents referred to as LCR compliance monitoring certification reports.

- Correspondence is drafted and will be sent to the city of Flint requesting that they provide appropriate documentation to demonstrate that the sampling locations selected and certified by the city of Flint comply with Act 399. In the absence of appropriate justification/documentation, the city of Flint may be subject to enforcement for violation of Act 399.

Significant Event:

- On November 3 the EPA issued a memorandum to address "certain concerns raised about the application of the [federal] 1991 Lead and Copper Rule, specifically the requirements pertaining to maintenance of optimal corrosion control treatment, in situations in which a large water system ceases to purchase treated water and switches to a new drinking water source." This EPA memorandum further states: "This type of situation rarely arises and the language of the LCR does not specifically discuss such circumstances. After reviewing the rule with our Office of General Counsel, it appears that there are differing possible interpretations of the LCR with respect to how the rule's optimal corrosion control treatment procedures apply to this situation…." This EPA memorandum clarifies the requirements should a situation like Flint occur again in the future. However, it clearly recognizes that the options chosen by Michigan were one interpretation or option of the LCR.

Changes from Previous Report:

- Staff e-mailed Michael Glasgow and Brent Wright of the city of Flint on November 4 to request a time line and a request to notify the DEQ when the phosphate equipment is installed. Mr. Wright responded on November 5 noting

that the city of Flint just received the Act 399 permit in the mail on November 5. Equipment is to be ordered by November 6, and the Flint Water Treatment Plant operators plan to start installing the feed piping on November 9.

- A letter detailing standby operation requirements is currently being prepared by the DEQ and will be sent to the city of Flint during the week of November 9. A review of the standby operation monthly operation reports with the city of Flint will be conducted during the next routine site visit at the Flint Water Treatment Plant.

- A letter has been prepared that requests the city of Flint to provide additional information and documentation regarding all of their historic LCR compliance sampling sites and to compare the service line information reported on the LCR compliance monitoring certification reports against the service line information from the city of Flint's digitized index cards. Conflicts noted between the index cards and the LCR compliance monitoring certification will need further explanation, and the city of Flint will need to provide supporting documentation demonstrating these sites meet Tier 1 criteria. The letter will be provided to the city of Flint on November 9.

- The draft document for sampling protocol for residential exposure assessment is under development. DEQ staff discussed the preliminary plan with DHHS staff.

- The draft document for generic school sampling guidance for statewide distribution is under development. Staff is working on making this an easy-to-read and follow guidance document.

- DEQ staff met with DHHS staff on November 5 to discuss residential elevated blood lead investigations and a protocol for water testing.

Other Items:

- As provided by the DHHS, the purchased total water filter/pitcher distribution through November 6 is 13,649 units.

- Attached are the:
  - Final report for the plumbing evaluation of Freeman Elementary School
  - Spreadsheets that consolidate the lead and copper data for Freeman Elementary School
  - Consolidated spreadsheets for water samples submitted by Flint residents sorted by ZIP Code and sorted by concentration

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
November 9, 2015

FREEMAN ELEMENTARY SCHOOL

Outlet Sampling and Plumbing Assessment Recommendations

4001 Ogema Avenue, Flint, MI 48507

BACKGROUND INFORMATION

On Friday, October 23, 2015, the Department of Licensing and Regulatory Affairs (DLARA) and the Department of Environmental Quality (DEQ) conducted an assessment of Freeman Elementary School's plumbing system to gain a comprehensive understanding of how water moves through the building and what types of plumbing materials are used. The assessment identified the following potential sources of lead leaching into drinking water:

- Lead solder joints on copper piping
- Brass valves and brass fittings
- Brass components in fixtures
- Galvanized piping

The assessment also identified 31 faucets or fountains that provide water for drinking, cooking, and/or food preparation. The team developed a sequence for sampling the 31 faucets/fountains based on how the water travels through the building.

On Saturday, October 24, 2015, the DEQ and the DLARA completed sampling of the 31 faucets/fountains, in the order determined by the plumbing assessment from the previous day, following a stagnation period of 12 hours. At each of the 31 faucets/fountains identified, staff collected four samples. Two initial, 125-milliliter samples (P1 and P2) were collected immediately after turning on the tap. The water was then flushed for 30 seconds, and a third 125-milliliter sample (F1) was collected. Finally, the water was flushed for another two minutes, and the fourth 125-milliliter sample (F2) was collected. These samples were used to determine the impact of any lead sources in and around each specific faucet/fountain and its connecting plumbing.

On Saturday, October 31, 2015, the DEQ completed consecutive sampling at three of the 31 faucets/fountains following a stagnation period of 12 hours. This sampling was used to determine the impact of any lead sources located deep in the supply plumbing. The three sites included one site near the building service line, one site near the plumbing mid-point, and one site at the far end of the plumbing system. At each of these three sites, staff collected 10, 1-liter samples. The 10 samples were collected immediately after turning on the tap, and consecutively, without any flushing time in between.

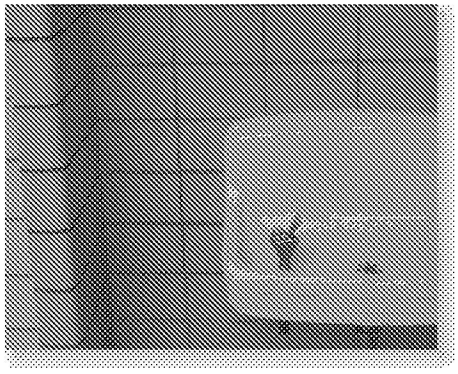
WATER SERVICE INFORMATION

A four-inch diameter cast iron water service line enters the school in the boiler room on the west wall. Piping in the boiler room immediately transitions into galvanized metal piping for cold water lines. Two separate galvanized cold water supply lines exit the boiler room. One in the northeast corner appears to serve the gym, auditorium, and proposed pre-K facilities on the north end of the school. The other exits the boiler room in the southwest corner and appears to serve the remainder of the school to the south, including the library. This line was also found to have grounding connections attached to the piping. Hot water is distributed in continuous loops that feed from and return to a central water heater in the boiler room. Hot water piping material, where exposed, was copper piping with 50/50 lead solder joints. Brass valves were seen throughout the building.

Outlets With Lead Levels Greater Than 15 Parts per Billion

The DEQ recommends school facilities take action if samples from any drinking water outlets show lead levels greater than 15 parts per billion. Based on the sampling conducted at 31 faucets/fountains on October 24, 2015, the following nine drinking water outlets had lead water level results greater than 15 parts per billion. Each of these nine outlets is listed below with its sample results, including a description of the potential source(s) of lead, and recommended actions for the school to take.

Outlet: Bubbler Drinking Fountain, Left (DW001)

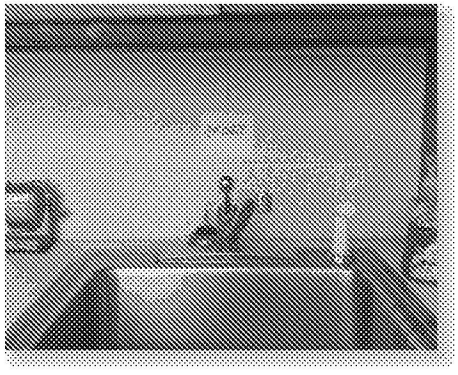


Location: Hallway outside Janitorial Room
Results: P1=40 parts per billion, P2=6 parts per billion
F1=4 parts per billion, F2=1 part per billion

These results suggest the highest contribution of lead may be from the bubbler itself. This bubbler fixture is believed to have a brass valve. The connection underneath the sink also appears to have some brass components, including the valve at the wall.

Replacement of this bubbler tap and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Sink Faucet (CF029)



Location: DHHS Office, west wall
Results: P1=17 parts per billion, P2=12 parts per billion
F1=2 parts per billion, F2=non-detect

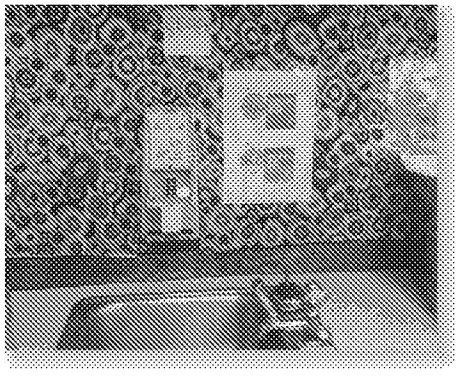
These results suggest the highest contribution of lead may be from the faucet and its connecting plumbing. The faucet is a Delta 400. This model faucet valve has brass components. This style faucet also has a mixing valve that may allow mixing of hot and cold water. Connecting plumbing in the cabinet under the sink may also contain brass components.

This faucet also has an aerator at the outlet. The aerator should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator should be periodically checked and cleaned.

Replacement of this faucet and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Integrated faucet and bubbler fountain (CF006)

Location: Classroom 2, south wall
Results: P1=16 parts per billion, P2=3 parts per billion
F1=1 part per billion, F2=1 part per billion

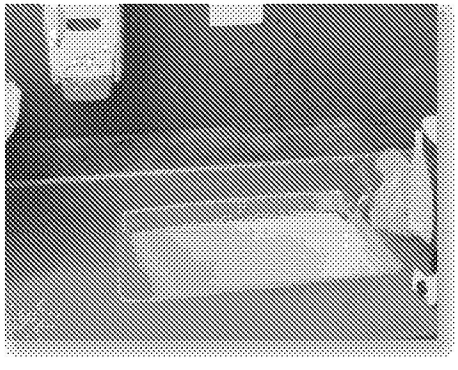


These results were collected from the faucet portion of the fixture and suggest the highest contribution of lead may be from the fixture itself. The make and model of this fixture is unknown, but appears to be made of chrome plated brass and may be connected on the underside of the sink using a brass nipple.

Replacement of this fixture and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Integrated faucet and bubbler fountain (CF014)

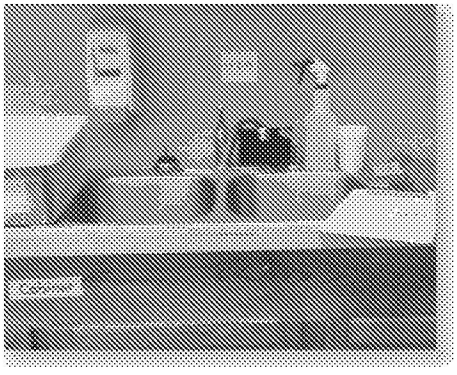
Location: Classroom 10, north wall
Results: P1=27 parts per billion, P2=7 parts per billion
F1=4 parts per billion, F2=3 parts per billion



These results were collected from the faucet portion of the fixture and suggest the highest contribution of lead may be from the fixture itself and its connecting plumbing. The make and model of this fixture is unknown, but appears to be made of chrome plated brass and may be connected on the underside of the sink using a brass nipple. Connecting plumbing in the cabinet under the sink may also contain brass components.

Replacement of this fixture and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Sink Faucet (CF013)



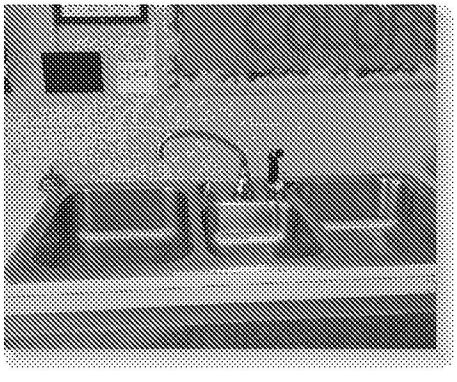
Location: Classroom 10, north wall
Results: P1=9 parts per billion, P2=18 parts per billion
F1=3 parts per billion, F2=3 parts per billion

These results suggest the highest contribution of lead may be from the connecting plumbing with some contribution from the faucet itself. The faucet appears to be a Delta 500 series. This model faucet may have some brass components. This style faucet also has a mixing valve that may allow mixing of hot and cold water. Connecting plumbing in the cabinet under the sink should be checked for brass components, including brass valves.

This faucet also has an aerator at the outlet. The aerator should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator should be periodically checked and cleaned.

Replacement of this faucet and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Sink Faucet (CF015)



Location: Classroom 11, northeast corner
Results: P1=102 parts per billion, P2=326 parts per billion
F1=14 parts per billion, F2=11 parts per billion

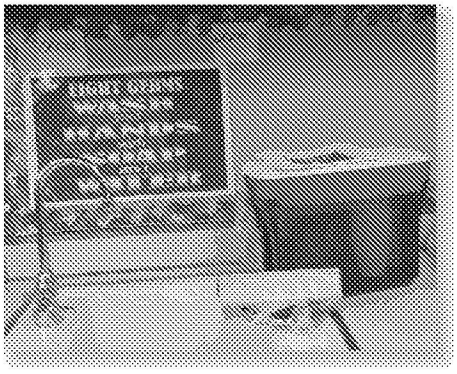
These results suggest the highest contribution of lead may be from the connecting plumbing and from the faucet itself. The faucet is an older design that uses a brass tube approximately 8 inches in length between the hot and cold water valves and connects to the outlet under the sink. This brass tube may be the primary source of lead, explaining the higher second (P2) sample result. The faucet and valves may also contain brass components. Connecting plumbing in the cabinet under the sink should be checked for additional brass components, including brass valves.

This faucet also has an aerator at the outlet. The aerator should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator should be periodically checked and cleaned.

Replacement of this faucet and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location and needs to be completed. If replacement is not currently feasible, **DO NOT USE THIS FAUCET FOR DRINKING OR COOKING.**

Outlet: Integrated faucet and bubbler fountain (CF024)

Location: Classroom 19, east wall
Results: P1=23 parts per billion, P2=3 parts per billion
F1=4 part per billion, F2=3 parts per billion

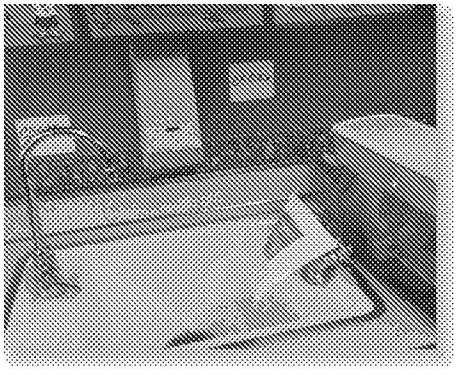


These results were collected from the faucet portion of the fixture and suggest the highest contribution of lead may be from the fixture itself. The make and model of this fixture is unknown, but appears to be made of chrome plated brass and may be connected on the underside of the sink using a brass nipple.

Replacement of this fixture and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Bubbler fountain (CF026)

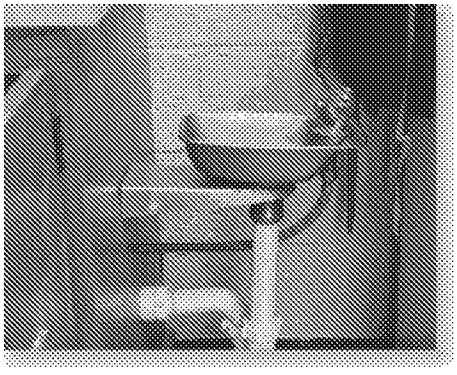
Location: Classroom 14, west wall
Results: P1=36 parts per billion, P2=30 parts per billion
F1=17 parts per billion, F2=4 parts per billion



These results suggest the highest contribution of lead may be from the bubbler itself. This bubbler fixture appears to be made of chrome plated brass. This style bubbler typically has a 4-5-inch brass fitting that connects to a 3-inch brass nipple on the underside of the sink. This would explain the higher concentrations in the first two sample results. The connection underneath the sink may also have some brass components and should be checked, including the valve.

Replacement of this bubbler tap and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location and should be completed. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes prior to each use and for at least 4 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure. **In general, use of this fountain for drinking water should be discouraged.**

Outlet: Bubbler fountain (CF031)



Location: Proposed Pre-K Room, south wall
Results: P1=57 parts per billion, P2=3 parts per billion
F1=2 parts per billion, F2=non-detect

These results suggest the highest contribution of lead may be from the bubbler itself. This bubbler fixture appears to be made of chrome plated brass. This bubbler has a brass fitting connection to a brass nipple. The connector hose is not expected to be contributing lead.

Replacement of this bubbler tap and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location and should be completed. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlets With Lead Levels 15 Parts per Billion or Less

While the remaining 22 outlets showed sample results to be at levels requiring no further action, several recommendations have been identified.

The fourth sample at each of these 22 outlets following approximately 3 minutes of use and flushing at a reduced flow reduced lead concentrations to 4 parts per billion or less. This indicates that flushing of all taps used for drinking, cooking, and/or food preparation for 4 minutes following periods of stagnation will further reduce lead exposure. It is recommended that a flushing operational procedure be developed for use by staff responsible for plumbing operations and maintenance.

Twelve of these outlets are comprised of similar materials as the outlets listed above and could potentially experience higher lead levels under extended periods of stagnation. These faucets/fountains include:

- Sink Side Bubbler Units in Classroom 12 (CF022), Classroom 5 (CF009), Classroom 21 (CF028), Hallway Fountain (DW002), Classroom 15 (CF018), Classroom 17 (CF020), and Classroom 1 (DW005).
- Integrated Faucet Bubbler Fountain Units in Classroom 6 (CF010), Classroom 9 (CF012), Classroom 4 (CF008), Classroom 3 (CF007), and Classroom 7 (CF011).

Replacement of these fixtures with lead-free materials is also recommended.

The remaining 10 outlets showed sample results of 15 parts per billion or less, requiring no further action or additional recommendations. These faucets/fountains include:

- Sink Faucets in Classroom 1 (CF004), Classroom 15 (CF017), Classroom 17 (CF019), Classroom 12 (CF021), Classroom 19 (CF023), Classroom 14 (CF025), Classroom 21 (CF027), and Proposed Pre-K Room (CF030).
- Kitchen Sink (cold) in the Community Room (KC003).
- Sink Side Bubbler Fountain in Classroom 11 (CF016).

Consecutive Sampling Results and Building Plumbing Recommendations

The consecutive samples taken at three sites in the building on October 31, 2015, provide additional confirmation that the highest contribution of lead appears to be from the individual faucet/fountains and not from the larger diameter supply plumbing within the school building.

Consecutive Sample No.	1	2	3	4	5	6	7	8	9	10
LOCATION	LEAD RESULT (PARTS PER BILLION; ND = NOT-DETECTED)									
Proposed Pre-K Rm Sink Faucet (CF030)	2	1	ND	ND	ND	ND	ND	ND	ND	ND
Classroom 11 Sink Faucet (CF015)	62	8	8	7	7	7	7	6	6	6
Classroom 21 Sink Faucet (CF027)	2	ND	ND	ND	ND	ND	ND	ND	ND	ND

The continued presence of lead in samples collected at Classroom 11 (CF015) may be a result of lead particulates caught in the aerator/screen installed on the faucet outlet or may be from a source of lead further back in the plumbing system. However, the non-detect results from consecutive samples collected in Proposed Pre-K Room (CF030) and Classroom 21 (CF027) suggest any additional source of lead associated with Classroom 11 (CF015) is localized to the plumbing branch serving this faucet. The faucet aerator/screen in Classroom 11 (CF015) should be removed and inspected before completing a more in-depth plumbing analysis. Consecutive sampling results at Classroom 11 (CF015) support the water use restrictions specified for this outlet.

ANALYTE	RESULT (mg\L)	Sample Location	Sample Description	Site Code	Site Code Description
Lead	0.010	Classroom 12	CF022	P1	First Primary draw of 125 milliliters
Lead	0.003	Classroom 12	CF022	P2	Second Primary draw of 125 milliliters
Lead	0.001	Classroom 12	CF022	F01	Flush Sample taken 30 Seconds after Second
Lead	0.001	Classroom 12	CF022	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.004	Classroom 12	CF021	P1	First Primary draw of 125 milliliters
Lead	0.007	Classroom 12	CF021	P2	Second Primary draw of 125 milliliters
Lead	0.000	Classroom 12	CF021	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	Classroom 12	CF021	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.009	Classroom 5	CF009	P1	First Primary draw of 125 milliliters
Lead	0.002	Classroom 5	CF009	P2	Second Primary draw of 125 milliliters
Lead	0.002	Classroom 5	CF009	F01	Flush Sample taken 30 Seconds after Second
Lead	0.001	Classroom 5	CF009	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.102	Classroom 11	CF015	P1	First Primary draw of 125 milliliters
Lead	0.326	Classroom 11	CF015	P2	Second Primary draw of 125 milliliters
Lead	0.014	Classroom 11	CF015	F01	Flush Sample taken 30 Seconds after Second
Lead	0.011	Classroom 11	CF015	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.003	Classroom 11	CF016	P1	First Primary draw of 125 milliliters
Lead	0.003	Classroom 11	CF016	P2	Second Primary draw of 125 milliliters
Lead	0.005	Classroom 11	CF016	F01	Flush Sample taken 30 Seconds after Second
Lead	0.004	Classroom 11	CF016	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.009	Classroom 21	CF027	P1	First Primary draw of 125 milliliters
Lead	0.007	Classroom 21	CF027	P2	Second Primary draw of 125 milliliters
Lead	0.000	Classroom 21	CF027	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	Classroom 21	CF027	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.012	Classroom 6	CF010	P1	First Primary draw of 125 milliliters
Lead	0.004	Classroom 6	CF010	P2	Second Primary draw of 125 milliliters
Lead	0.002	Classroom 6	CF010	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	Classroom 6	CF010	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.009	Classroom 21	CF028	P1	First Primary draw of 125 milliliters
Lead	0.002	Classroom 21	CF028	P2	Second Primary draw of 125 milliliters
Lead	0.001	Classroom 21	CF028	F01	Flush Sample taken 30 Seconds after Second
Lead	0.001	Classroom 21	CF028	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.023	Classroom 19	CF024	P1	First Primary draw of 125 milliliters
Lead	0.003	Classroom 19	CF024	P2	Second Primary draw of 125 milliliters
Lead	0.004	Classroom 19	CF024	F01	Flush Sample taken 30 Seconds after Second
Lead	0.003	Classroom 19	CF024	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.005	Community Room	KC003	P1	First Primary draw of 125 milliliters
Lead	0.002	Community Room	KC003	P2	Second Primary draw of 125 milliliters
Lead	0.000	Community Room	KC003	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	Community Room	KC003	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.009	Classroom 19	CF023	P1	First Primary draw of 125 milliliters
Lead	0.009	Classroom 19	CF023	P2	Second Primary draw of 125 milliliters
Lead	0.001	Classroom 19	CF023	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	Classroom 19	CF023	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.015	Hallway	DW002	P1	First Primary draw of 125 milliliters
Lead	0.006	Hallway	DW002	P2	Second Primary draw of 125 milliliters
Lead	0.004	Hallway	DW002	F01	Flush Sample taken 30 Seconds after Second
Lead	0.001	Hallway	DW002	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.002	Classroom 9	CF012	P1	First Primary draw of 125 milliliters
Lead	0.004	Classroom 9	CF012	P2	Second Primary draw of 125 milliliters
Lead	0.002	Classroom 9	CF012	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	Classroom 9	CF012	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.048	Hallway	DW001	P1	First Primary draw of 125 milliliters
Lead	0.006	Hallway	DW001	P2	Second Primary draw of 125 milliliters
Lead	0.004	Hallway	DW001	F01	Flush Sample taken 30 Seconds after Second
Lead	0.001	Hallway	DW001	F02	Flush Sample taken 2 minutes after First Flush

ANALYTE	RESULT (mg\L)	Sample Location	Sample Description	Site Code	Site Code Description
Lead	0.014	Classroom 15	CF018	P1	First Primary draw of 125 milliliters
Lead	0.005	Classroom 15	CF018	P2	Second Primary draw of 125 milliliters
Lead	0.002	Classroom 15	CF018	F01	Flush Sample taken 30 Seconds after Second
Lead	0.002	Classroom 15	CF018	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.010	Classroom 15	CF017	P1	First Primary draw of 125 milliliters
Lead	0.014	Classroom 15	CF017	P2	Second Primary draw of 125 milliliters
Lead	0.002	Classroom 15	CF017	F01	Flush Sample taken 30 Seconds after Second
Lead	0.002	Classroom 15	CF017	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.017	DHHS Office	CF029	P1	First Primary draw of 125 milliliters
Lead	0.012	DHHS Office	CF029	P2	Second Primary draw of 125 milliliters
Lead	0.002	DHHS Office	CF029	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	DHHS Office	CF029	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.013	Classroom 4	CF008	P1	First Primary draw of 125 milliliters
Lead	0.006	Classroom 4	CF008	P2	Second Primary draw of 125 milliliters
Lead	0.001	Classroom 4	CF008	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	Classroom 4	CF008	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.007	Classroom 3	CF007	P1	First Primary draw of 125 milliliters
Lead	0.006	Classroom 3	CF007	P2	Second Primary draw of 125 milliliters
Lead	0.003	Classroom 3	CF007	F01	Flush Sample taken 30 Seconds after Second
Lead	0.002	Classroom 3	CF007	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.027	Classroom 10	CF014	P1	First Primary draw of 125 milliliters
Lead	0.007	Classroom 10	CF014	P2	Second Primary draw of 125 milliliters
Lead	0.004	Classroom 10	CF014	F01	Flush Sample taken 30 Seconds after Second
Lead	0.003	Classroom 10	CF014	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.036	Classroom 14	CF026	P1	First Primary draw of 125 milliliters
Lead	0.030	Classroom 14	CF026	P2	Second Primary draw of 125 milliliters
Lead	0.017	Classroom 14	CF026	F01	Flush Sample taken 30 Seconds after Second
Lead	0.004	Classroom 14	CF026	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.005	Classroom 17	CF019	P1	First Primary draw of 125 milliliters
Lead	0.003	Classroom 17	CF019	P2	Second Primary draw of 125 milliliters
Lead	0.001	Classroom 17	CF019	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	Classroom 17	CF019	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.000	Classroom 14	CF025	P1	First Primary draw of 125 milliliters
Lead	0.003	Classroom 14	CF025	P2	Second Primary draw of 125 milliliters
Lead	0.003	Classroom 14	CF025	F01	Flush Sample taken 30 Seconds after Second
Lead	0.002	Classroom 14	CF025	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.009	Classroom 10	CF013	P1	First Primary draw of 125 milliliters
Lead	0.018	Classroom 10	CF013	P2	Second Primary draw of 125 milliliters
Lead	0.003	Classroom 10	CF013	F01	Flush Sample taken 30 Seconds after Second
Lead	0.003	Classroom 10	CF013	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.013	Classroom 17	CF020	P1	First Primary draw of 125 milliliters
Lead	0.004	Classroom 17	CF020	P2	Second Primary draw of 125 milliliters
Lead	0.005	Classroom 17	CF020	F01	Flush Sample taken 30 Seconds after Second
Lead	0.003	Classroom 17	CF020	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.016	Classroom 2	CF006	P1	First Primary draw of 125 milliliters
Lead	0.003	Classroom 2	CF006	P2	Second Primary draw of 125 milliliters
Lead	0.001	Classroom 2	CF006	F01	Flush Sample taken 30 Seconds after Second
Lead	0.001	Classroom 2	CF006	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.002	Classroom 7	CF011	P1	First Primary draw of 125 milliliters
Lead	0.000	Classroom 7	CF011	P2	Second Primary draw of 125 milliliters
Lead	0.002	Classroom 7	CF011	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	Classroom 7	CF011	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.057	Proposed Pre K	CF031	P1	First Primary draw of 125 milliliters
Lead	0.003	Proposed Pre K	CF031	P2	Second Primary draw of 125 milliliters
Lead	0.002	Proposed Pre K	CF031	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	Proposed Pre K	CF031	F02	Flush Sample taken 2 minutes after First Flush

ANALYTE	RESULT (mg\L)	Sample Location	Sample Description	Site Code	Site Code Description
Lead	0.010	Proposed Pre K	CF030	P1	First Primary draw of 125 milliliters
Lead	0.003	Proposed Pre K	CF030	P2	Second Primary draw of 125 milliliters
Lead	0.007	Proposed Pre K	CF030	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	Proposed Pre K	CF030	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.012	Classroom 1	CF004	P1	First Primary draw of 125 milliliters
Lead	0.007	Classroom 1	CF004	P2	Second Primary draw of 125 milliliters
Lead	0.004	Classroom 1	CF004	F01	Flush Sample taken 30 Seconds after Second
Lead	0.002	Classroom 1	CF004	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.005	Classroom 1	DW005	P1	First Primary draw of 125 milliliters
Lead	0.003	Classroom 1	DW005	P2	Second Primary draw of 125 milliliters
Lead	0.003	Classroom 1	DW005	F01	Flush Sample taken 30 Seconds after Second
Lead	0.002	Classroom 1	DW005	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.002	Proposed Pre K	CF030	CA1	First Sequential Sample
Lead	0.001	Proposed Pre K	CF030	CA2	Second Sequential Sample
Lead	0.000	Proposed Pre K	CF030	CA3	Third Sequential Sample
Lead	0.000	Proposed Pre K	CF030	CA4	Forth Sequential Sample
Lead	0.000	Proposed Pre K	CF030	CA5	Fifth Sequential Sample
Lead	0.000	Proposed Pre K	CF030	CA6	Sixth Sequential Sample
Lead	0.000	Proposed Pre K	CF030	CA7	Seventh Sequential Sample
Lead	0.000	Proposed Pre K	CF030	CA8	Eigth Sequential Sample
Lead	0.000	Proposed Pre K	CF030	CA9	Ninth Sequential Sample
Lead	0.000	Proposed Pre K	CF030	CA10	Tenth Sequential Sample
Lead	0.062	Classroom 11	CF015	CB1	First Sequential Sample
Lead	0.008	Classroom 11	CF015	CB2	Second Sequential Sample
Lead	0.008	Classroom 11	CF015	CB3	Third Sequential Sample
Lead	0.007	Classroom 11	CF015	CB4	Forth Sequential Sample
Lead	0.007	Classroom 11	CF015	CB5	Fifth Sequential Sample
Lead	0.007	Classroom 11	CF015	CB6	Sixth Sequential Sample
Lead	0.007	Classroom 11	CF015	CB7	Seventh Sequential Sample
Lead	0.006	Classroom 11	CF015	CB8	Eigth Sequential Sample
Lead	0.006	Classroom 11	CF015	CB9	Ninth Sequential Sample
Lead	0.006	Classroom 11	CF015	CB10	Tenth Sequential Sample
Lead	0.002	Classroom 21	CF027	CC1	First Sequential Sample
Lead	0.000	Classroom 21	CF027	CC2	Second Sequential Sample
Lead	0.000	Classroom 21	CF027	CC3	Third Sequential Sample
Lead	0.000	Classroom 21	CF027	CC4	Forth Sequential Sample
Lead	0.000	Classroom 21	CF027	CC5	Fifth Sequential Sample
Lead	0.000	Classroom 21	CF027	CC6	Sixth Sequential Sample
Lead	0.000	Classroom 21	CF027	CC7	Seventh Sequential Sample
Lead	0.000	Classroom 21	CF027	CC8	Eigth Sequential Sample
Lead	0.000	Classroom 21	CF027	CC9	Ninth Sequential Sample
Lead	0.000	Classroom 21	CF027	CC10	Tenth Sequential Sample

Note: Results of "Not Detected" have been converted to a numerical value of zero to allow for ease of sorting

Results in RED exceed 15 ppb
1 ppb = 0.001 mg\L

ANALYTE	RESULT (mg\L)	Sample Location	Sample Description	Site Code	Site Code Description
Copper	0.32	Classroom 12	CF022	P1	First Primary draw of 125 milliliters
Copper	0.17	Classroom 12	CF022	P2	Second Primary draw of 125 milliliters
Copper	0.15	Classroom 12	CF022	F01	Flush Sample taken 30 Seconds after Second
Copper	0.15	Classroom 12	CF022	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.09	Classroom 12	CF021	P1	First Primary draw of 125 milliliters
Copper	0.15	Classroom 12	CF021	P2	Second Primary draw of 125 milliliters
Copper	0.14	Classroom 12	CF021	F01	Flush Sample taken 30 Seconds after Second
Copper	0.15	Classroom 12	CF021	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.31	Classroom 5	CF009	P1	First Primary draw of 125 milliliters
Copper	0.28	Classroom 5	CF009	P2	Second Primary draw of 125 milliliters
Copper	0.08	Classroom 5	CF009	F01	Flush Sample taken 30 Seconds after Second
Copper	0.07	Classroom 5	CF009	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.43	Classroom 11	CF015	P1	First Primary draw of 125 milliliters
Copper	0.66	Classroom 11	CF015	P2	Second Primary draw of 125 milliliters
Copper	0.19	Classroom 11	CF015	F01	Flush Sample taken 30 Seconds after Second
Copper	0.13	Classroom 11	CF015	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.99	Classroom 11	CF016	P1	First Primary draw of 125 milliliters
Copper	0.89	Classroom 11	CF016	P2	Second Primary draw of 125 milliliters
Copper	0.16	Classroom 11	CF016	F01	Flush Sample taken 30 Seconds after Second
Copper	0.13	Classroom 11	CF016	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.19	Classroom 21	CF027	P1	First Primary draw of 125 milliliters
Copper	0.21	Classroom 21	CF027	P2	Second Primary draw of 125 milliliters
Copper	0.16	Classroom 21	CF027	F01	Flush Sample taken 30 Seconds after Second
Copper	0.15	Classroom 21	CF027	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.24	Classroom 6	CF010	P1	First Primary draw of 125 milliliters
Copper	0.22	Classroom 6	CF010	P2	Second Primary draw of 125 milliliters
Copper	0.17	Classroom 6	CF010	F01	Flush Sample taken 30 Seconds after Second
Copper	0.12	Classroom 6	CF010	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.17	Classroom 21	CF028	P1	First Primary draw of 125 milliliters
Copper	0.16	Classroom 21	CF028	P2	Second Primary draw of 125 milliliters
Copper	0.15	Classroom 21	CF028	F01	Flush Sample taken 30 Seconds after Second
Copper	0.15	Classroom 21	CF028	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.23	Classroom 19	CF024	P1	First Primary draw of 125 milliliters
Copper	0.17	Classroom 19	CF024	P2	Second Primary draw of 125 milliliters
Copper	0.16	Classroom 19	CF024	F01	Flush Sample taken 30 Seconds after Second
Copper	0.16	Classroom 19	CF024	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.31	Community Room	KC003	P1	First Primary draw of 125 milliliters
Copper	0.27	Community Room	KC003	P2	Second Primary draw of 125 milliliters
Copper	0.14	Community Room	KC003	F01	Flush Sample taken 30 Seconds after Second
Copper	0.13	Community Room	KC003	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.13	Classroom 19	CF023	P1	First Primary draw of 125 milliliters
Copper	0.18	Classroom 19	CF023	P2	Second Primary draw of 125 milliliters
Copper	0.15	Classroom 19	CF023	F01	Flush Sample taken 30 Seconds after Second
Copper	0.15	Classroom 19	CF023	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.21	Hallway	DW002	P1	First Primary draw of 125 milliliters
Copper	0.10	Hallway	DW002	P2	Second Primary draw of 125 milliliters
Copper	0.07	Hallway	DW002	F01	Flush Sample taken 30 Seconds after Second
Copper	0.00	Hallway	DW002	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.23	Classroom 9	CF012	P1	First Primary draw of 125 milliliters
Copper	0.16	Classroom 9	CF012	P2	Second Primary draw of 125 milliliters
Copper	0.11	Classroom 9	CF012	F01	Flush Sample taken 30 Seconds after Second
Copper	0.08	Classroom 9	CF012	F02	Flush Sample taken 2 minutes after First Flush

ANALYTE	RESULT (mg/L)	Sample Location	Sample Description	Site Code	Site Code Description
Copper	0.41	Hallway	DW001	P1	First Primary draw of 125 milliliters
Copper	0.29	Hallway	DW001	P2	Second Primary draw of 125 milliliters
Copper	0.17	Hallway	DW001	F01	Flush Sample taken 30 Seconds after Second
Copper	0.00	Hallway	DW001	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.20	Classroom 15	CF018	P1	First Primary draw of 125 milliliters
Copper	0.17	Classroom 15	CF018	P2	Second Primary draw of 125 milliliters
Copper	0.14	Classroom 15	CF018	F01	Flush Sample taken 30 Seconds after Second
Copper	0.14	Classroom 15	CF018	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.17	Classroom 15	CF017	P1	First Primary draw of 125 milliliters
Copper	0.29	Classroom 15	CF017	P2	Second Primary draw of 125 milliliters
Copper	0.17	Classroom 15	CF017	F01	Flush Sample taken 30 Seconds after Second
Copper	0.15	Classroom 15	CF017	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.59	DHS Office	CF029	P1	First Primary draw of 125 milliliters
Copper	0.40	DHS Office	CF029	P2	Second Primary draw of 125 milliliters
Copper	0.08	DHS Office	CF029	F01	Flush Sample taken 30 Seconds after Second
Copper	0.00	DHS Office	CF029	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.28	Classroom 4	CF008	P1	First Primary draw of 125 milliliters
Copper	0.54	Classroom 4	CF008	P2	Second Primary draw of 125 milliliters
Copper	0.17	Classroom 4	CF008	F01	Flush Sample taken 30 Seconds after Second
Copper	0.15	Classroom 4	CF008	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.17	Classroom 3	CF007	P1	First Primary draw of 125 milliliters
Copper	0.27	Classroom 3	CF007	P2	Second Primary draw of 125 milliliters
Copper	0.09	Classroom 3	CF007	F01	Flush Sample taken 30 Seconds after Second
Copper	0.07	Classroom 3	CF007	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.11	Classroom 10	CF014	P1	First Primary draw of 125 milliliters
Copper	0.10	Classroom 10	CF014	P2	Second Primary draw of 125 milliliters
Copper	0.10	Classroom 10	CF014	F01	Flush Sample taken 30 Seconds after Second
Copper	0.08	Classroom 10	CF014	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.75	Classroom 14	CF026	P1	First Primary draw of 125 milliliters
Copper	0.66	Classroom 14	CF026	P2	Second Primary draw of 125 milliliters
Copper	0.35	Classroom 14	CF026	F01	Flush Sample taken 30 Seconds after Second
Copper	0.20	Classroom 14	CF026	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.16	Classroom 17	CF019	P1	First Primary draw of 125 milliliters
Copper	0.15	Classroom 17	CF019	P2	Second Primary draw of 125 milliliters
Copper	0.14	Classroom 17	CF019	F01	Flush Sample taken 30 Seconds after Second
Copper	0.14	Classroom 17	CF019	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.14	Classroom 14	CF025	P1	First Primary draw of 125 milliliters
Copper	0.25	Classroom 14	CF025	P2	Second Primary draw of 125 milliliters
Copper	0.17	Classroom 14	CF025	F01	Flush Sample taken 30 Seconds after Second
Copper	0.18	Classroom 14	CF025	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.06	Classroom 10	CF013	P1	First Primary draw of 125 milliliters
Copper	0.07	Classroom 10	CF013	P2	Second Primary draw of 125 milliliters
Copper	0.19	Classroom 10	CF013	F01	Flush Sample taken 30 Seconds after Second
Copper	0.10	Classroom 10	CF013	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.19	Classroom 17	CF020	P1	First Primary draw of 125 milliliters
Copper	0.16	Classroom 17	CF020	P2	Second Primary draw of 125 milliliters
Copper	0.16	Classroom 17	CF020	F01	Flush Sample taken 30 Seconds after Second
Copper	0.14	Classroom 17	CF020	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.17	Classroom 2	CF006	P1	First Primary draw of 125 milliliters
Copper	0.22	Classroom 2	CF006	P2	Second Primary draw of 125 milliliters
Copper	0.11	Classroom 2	CF006	F01	Flush Sample taken 30 Seconds after Second
Copper	0.11	Classroom 2	CF006	F02	Flush Sample taken 2 minutes after First Flush

ANALYTE	RESULT (mg\L)	Sample Location	Sample Description	Site Code	Site Code Description
Copper	0.20	Classroom 7	CF011	P1	First Primary draw of 125 milliliters
Copper	0.15	Classroom 7	CF011	P2	Second Primary draw of 125 milliliters
Copper	0.11	Classroom 7	CF011	F01	Flush Sample taken 30 Seconds after Second
Copper	0.06	Classroom 7	CF011	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.38	Proposed Pre K	CF031	P1	First Primary draw of 125 milliliters
Copper	0.21	Proposed Pre K	CF031	P2	Second Primary draw of 125 milliliters
Copper	0.27	Proposed Pre K	CF031	F01	Flush Sample taken 30 Seconds after Second
Copper	0.19	Proposed Pre K	CF031	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.38	Proposed Pre K	CF030	P1	First Primary draw of 125 milliliters
Copper	0.42	Proposed Pre K	CF030	P2	Second Primary draw of 125 milliliters
Copper	0.59	Proposed Pre K	CF030	F01	Flush Sample taken 30 Seconds after Second
Copper	0.21	Proposed Pre K	CF030	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.27	Classroom 1	CF004	P1	First Primary draw of 125 milliliters
Copper	0.25	Classroom 1	CF004	P2	Second Primary draw of 125 milliliters
Copper	0.21	Classroom 1	CF004	F01	Flush Sample taken 30 Seconds after Second
Copper	0.08	Classroom 1	CF004	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.10	Classroom 1	DW005	P1	First Primary draw of 125 milliliters
Copper	0.09	Classroom 1	DW005	P2	Second Primary draw of 125 milliliters
Copper	0.09	Classroom 1	DW005	F01	Flush Sample taken 30 Seconds after Second
Copper	0.06	Classroom 1	DW005	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.45	Proposed Pre K	CF030	CA1	First Sequential Sample
Copper	0.37	Proposed Pre K	CF030	CA2	Second Sequential Sample
Copper	0.22	Proposed Pre K	CF030	CA3	Third Sequential Sample
Copper	0.22	Proposed Pre K	CF030	CA4	Forth Sequential Sample
Copper	0.21	Proposed Pre K	CF030	CA5	Fifth Sequential Sample
Copper	0.21	Proposed Pre K	CF030	CA6	Sixth Sequential Sample
Copper	0.20	Proposed Pre K	CF030	CA7	Seventh Sequential Sample
Copper	0.20	Proposed Pre K	CF030	CA8	Eigth Sequential Sample
Copper	0.20	Proposed Pre K	CF030	CA9	Ninth Sequential Sample
Copper	0.20	Proposed Pre K	CF030	CA10	Tenth Sequential Sample
Copper	0.40	Classroom 11	CF015	CB1	First Sequential Sample
Copper	0.14	Classroom 11	CF015	CB2	Second Sequential Sample
Copper	0.13	Classroom 11	CF015	CB3	Third Sequential Sample
Copper	0.13	Classroom 11	CF015	CB4	Forth Sequential Sample
Copper	0.13	Classroom 11	CF015	CB5	Fifth Sequential Sample
Copper	0.13	Classroom 11	CF015	CB6	Sixth Sequential Sample
Copper	0.13	Classroom 11	CF015	CB7	Seventh Sequential Sample
Copper	0.12	Classroom 11	CF015	CB8	Eigth Sequential Sample
Copper	0.12	Classroom 11	CF015	CB9	Ninth Sequential Sample
Copper	0.12	Classroom 11	CF015	CB10	Tenth Sequential Sample
Copper	0.16	Classroom 21	CF027	CC1	First Sequential Sample
Copper	0.14	Classroom 21	CF027	CC2	Second Sequential Sample
Copper	0.14	Classroom 21	CF027	CC3	Third Sequential Sample
Copper	0.14	Classroom 21	CF027	CC4	Forth Sequential Sample
Copper	0.14	Classroom 21	CF027	CC5	Fifth Sequential Sample
Copper	0.15	Classroom 21	CF027	CC6	Sixth Sequential Sample
Copper	0.15	Classroom 21	CF027	CC7	Seventh Sequential Sample
Copper	0.15	Classroom 21	CF027	CC8	Eigth Sequential Sample
Copper	0.15	Classroom 21	CF027	CC9	Ninth Sequential Sample
Copper	0.15	Classroom 21	CF027	CC10	Tenth Sequential Sample

Note: Results of "Not Detected" have been converted to a numerical value of zero to allow for ease of sorting

None of the results for Copper exceeded 1.3 PPM
1 ppb = 0.001 mg\L

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.000		COPPER	0.34	48502
LEAD	0.000		COPPER	0.19	48502
LEAD	0.001		COPPER	0.00	48502
LEAD	0.001		COPPER	0.59	48502
LEAD	0.002		COPPER	0.92	48502
LEAD	0.002		COPPER	0.00	48502
LEAD	0.002		COPPER	0.19	48502
LEAD	0.004		COPPER	0.00	48502
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.22	48503
LEAD	0.000		COPPER	0.33	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.36	48503
LEAD	0.000		COPPER	0.34	48503
LEAD	0.000		COPPER	0.49	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.50	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.05	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.15	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.52	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.61	48503
LEAD	0.000		COPPER	0.56	48503
LEAD	0.000		COPPER	0.59	48503
LEAD	0.000		COPPER	0.53	48503
LEAD	0.000		COPPER	0.61	48503
LEAD	0.000		COPPER	0.63	48503
LEAD	0.000		COPPER	0.71	48503
LEAD	0.000		COPPER	0.67	48503
LEAD	0.000		COPPER	0.45	48503
LEAD	0.000		COPPER	0.91	48503
LEAD	0.000		COPPER	0.80	48503
LEAD	0.000		COPPER	0.80	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.000		COPPER	0.00	48503
LEAD	0.001		COPPER	0.00	48503
LEAD	0.001		COPPER	0.00	48503
LEAD	0.001		COPPER	0.34	48503
LEAD	0.001		COPPER	0.00	48503
LEAD	0.001		COPPER	0.05	48503
LEAD	0.001		COPPER	0.50	48503
LEAD	0.001		COPPER	0.11	48503
LEAD	0.001		COPPER	0.63	48503
LEAD	0.001		COPPER	0.00	48503
LEAD	0.001		COPPER	0.13	48503
LEAD	0.001		COPPER	0.63	48503
LEAD	0.001		COPPER	0.00	48503
LEAD	0.001		COPPER	0.33	48503
LEAD	0.001		COPPER	0.46	48503
LEAD	0.001		COPPER	0.00	48503
LEAD	0.001		COPPER	0.22	48503
LEAD	0.001		COPPER	0.19	48503
LEAD	0.001		COPPER	0.19	48503
LEAD	0.001		COPPER	0.05	48503
LEAD	0.001		COPPER	0.00	48503
LEAD	0.002		COPPER	0.08	48503
LEAD	0.002		COPPER	0.07	48503
LEAD	0.002		COPPER	0.11	48503
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.41	48503
LEAD	0.002		COPPER	0.15	48503
LEAD	0.002		COPPER	0.08	48503
LEAD	0.002		COPPER	0.13	48503
LEAD	0.002		COPPER	0.54	48503
LEAD	0.002		COPPER	0.72	48503
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.25	48503
LEAD	0.002		COPPER	0.09	48503
LEAD	0.002		COPPER	0.31	48503
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.62	48503
LEAD	0.002		COPPER	0.18	48503
LEAD	0.002		COPPER	0.18	48503
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.07	48503
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.14	48503
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.11	48503
LEAD	0.003		COPPER	0.37	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.10	48503

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.15	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.16	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.11	48503
LEAD	0.003		COPPER	0.12	48503
LEAD	0.003		COPPER	0.08	48503
LEAD	0.004		COPPER	0.00	48503
LEAD	0.004		COPPER	0.16	48503
LEAD	0.004		COPPER	0.23	48503
LEAD	0.004		COPPER	0.00	48503
LEAD	0.004		COPPER	0.00	48503
LEAD	0.004		COPPER	0.00	48503
LEAD	0.004		COPPER	0.06	48503
LEAD	0.004		COPPER	0.24	48503
LEAD	0.004		COPPER	0.07	48503
LEAD	0.004		COPPER	0.00	48503
LEAD	0.004		COPPER	0.07	48503
LEAD	0.004		COPPER	0.22	48503
LEAD	0.004		COPPER	0.00	48503
LEAD	0.005		COPPER	0.00	48503
LEAD	0.005		COPPER	0.05	48503
LEAD	0.005		COPPER	0.00	48503
LEAD	0.005		COPPER	0.00	48503
LEAD	0.005		COPPER	0.09	48503
LEAD	0.005		COPPER	0.00	48503
LEAD	0.005		COPPER	0.06	48503
LEAD	0.005		COPPER	0.24	48503
LEAD	0.005		COPPER	0.00	48503
LEAD	0.005		COPPER	0.00	48503
LEAD	0.006		COPPER	0.07	48503
LEAD	0.006		COPPER	0.00	48503
LEAD	0.006		COPPER	0.10	48503
LEAD	0.006		COPPER	0.15	48503
LEAD	0.006		COPPER	0.07	48503
LEAD	0.006		COPPER	0.11	48503
LEAD	0.006		COPPER	0.00	48503
LEAD	0.006		COPPER	0.00	48503
LEAD	0.006		COPPER	0.00	48503
LEAD	0.006		COPPER	0.00	48503
LEAD	0.007		COPPER	0.00	48503
LEAD	0.007		COPPER	0.41	48503
LEAD	0.007		COPPER	0.00	48503
LEAD	0.007		COPPER	0.22	48503
LEAD	0.008		COPPER	1.11	48503
LEAD	0.008		COPPER	0.07	48503
LEAD	0.008		COPPER	0.00	48503

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.008		COPPER	0.36	48503
LEAD	0.009		COPPER	0.17	48503
LEAD	0.009		COPPER	0.07	48503
LEAD	0.010		COPPER	0.00	48503
LEAD	0.010		COPPER	0.16	48503
LEAD	0.011		COPPER	0.00	48503
LEAD	0.011		COPPER	0.18	48503
LEAD	0.015		COPPER	0.00	48503
LEAD	0.016		COPPER	0.06	48503
LEAD	0.016		COPPER	0.00	48503
LEAD	0.018		COPPER	0.29	48503
LEAD	0.020		COPPER	0.13	48503
LEAD	0.021		COPPER	0.06	48503
LEAD	0.028		COPPER	0.00	48503
LEAD	0.030		COPPER	0.00	48503
LEAD	0.036		COPPER	0.00	48503
LEAD	0.053		COPPER	0.07	48503
LEAD	0.075		COPPER	0.57	48503
LEAD	0.088		COPPER	0.09	48503
LEAD	0.116		COPPER	0.13	48503
LEAD	0.131		COPPER	0.55	48503
LEAD	0.253		COPPER	0.18	48503
LEAD	0.327		COPPER	0.19	48503
LEAD	0.000		COPPER	0.14	48504
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.08	48504
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.23	48504
LEAD	0.000		COPPER	0.15	48504
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.05	48504
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.57	48504
LEAD	0.001		COPPER	0.07	48504
LEAD	0.001		COPPER	0.12	48504
LEAD	0.001		COPPER	0.16	48504
LEAD	0.002		COPPER	0.05	48504
LEAD	0.002		COPPER	0.00	48504
LEAD	0.002		COPPER	0.06	48504
LEAD	0.002		COPPER	0.00	48504
LEAD	0.002		COPPER	0.15	48504
LEAD	0.002		COPPER	0.00	48504
LEAD	0.002		COPPER	0.00	48504
LEAD	0.002		COPPER	0.10	48504
LEAD	0.002		COPPER	0.10	48504
LEAD	0.002		COPPER	0.00	48504
LEAD	0.002		COPPER	0.14	48504

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.002		COPPER	0.00	48504
LEAD	0.003		COPPER	0.00	48504
LEAD	0.003		COPPER	0.06	48504
LEAD	0.003		COPPER	0.18	48504
LEAD	0.003		COPPER	0.19	48504
LEAD	0.004		COPPER	0.12	48504
LEAD	0.004		COPPER	0.08	48504
LEAD	0.004		COPPER	0.00	48504
LEAD	0.004		COPPER	0.00	48504
LEAD	0.005		COPPER	0.50	48504
LEAD	0.006		COPPER	0.00	48504
LEAD	0.006		COPPER	0.32	48504
LEAD	0.006		COPPER	0.00	48504
LEAD	0.007		COPPER	0.00	48504
LEAD	0.008		COPPER	0.15	48504
LEAD	0.008		COPPER	0.00	48504
LEAD	0.009		COPPER	0.25	48504
LEAD	0.011		COPPER	0.00	48504
LEAD	0.012		COPPER	0.06	48504
LEAD	0.015		COPPER	0.00	48504
LEAD	0.041		COPPER	1.04	48504
LEAD	0.000		COPPER	0.00	48505
LEAD	0.000		COPPER	0.06	48505
LEAD	0.000		COPPER	0.24	48505
LEAD	0.000		COPPER	0.00	48505
LEAD	0.000		COPPER	0.00	48505
LEAD	0.001		COPPER	0.00	48505
LEAD	0.001		COPPER	0.00	48505
LEAD	0.001		COPPER	0.00	48505
LEAD	0.001		COPPER	0.05	48505
LEAD	0.001		COPPER	0.06	48505
LEAD	0.002		COPPER	0.65	48505
LEAD	0.003		COPPER	0.10	48505
LEAD	0.004		COPPER	0.09	48505
LEAD	0.004		COPPER	0.00	48505
LEAD	0.006		COPPER	0.00	48505
LEAD	0.007		COPPER	0.20	48505
LEAD	0.007		COPPER	0.08	48505
LEAD	0.008		COPPER	0.06	48505
LEAD	0.010		COPPER	0.00	48505
LEAD	0.013		COPPER	0.00	48505
LEAD	0.027		COPPER	0.08	48505
LEAD	0.035		COPPER	2.57	48505
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.05	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.08	48506

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.26	48506
LEAD	0.000		COPPER	0.11	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.09	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.07	48506
LEAD	0.000		COPPER	0.06	48506
LEAD	0.001		COPPER	0.07	48506
LEAD	0.001		COPPER	0.00	48506
LEAD	0.001		COPPER	0.00	48506
LEAD	0.001		COPPER	0.06	48506
LEAD	0.001		COPPER	0.00	48506
LEAD	0.001		COPPER	0.58	48506
LEAD	0.001		COPPER	0.05	48506
LEAD	0.002		COPPER	0.06	48506
LEAD	0.002		COPPER	0.15	48506
LEAD	0.002		COPPER	0.06	48506
LEAD	0.002		COPPER	0.55	48506
LEAD	0.002		COPPER	0.00	48506
LEAD	0.002		COPPER	0.11	48506
LEAD	0.003		COPPER	0.06	48506
LEAD	0.003		COPPER	0.00	48506
LEAD	0.004		COPPER	0.11	48506
LEAD	0.006		COPPER	0.00	48506
LEAD	0.006		COPPER	0.16	48506
LEAD	0.006		COPPER	0.00	48506
LEAD	0.010		COPPER	0.09	48506
LEAD	0.012		COPPER	0.00	48506
LEAD	0.016		COPPER	0.07	48506
LEAD	0.017		COPPER	1.38	48506
LEAD	0.017		COPPER	0.17	48506
LEAD	0.019		COPPER	0.07	48506
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.27	48507
LEAD	0.000		COPPER	0.17	48507
LEAD	0.000		COPPER	0.07	48507
LEAD	0.000		COPPER	0.06	48507
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.41	48507
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.32	48507
LEAD	0.001		COPPER	0.00	48507

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.001		COPPER	0.00	48507
LEAD	0.001		COPPER	0.00	48507
LEAD	0.001		COPPER	0.00	48507
LEAD	0.001		COPPER	0.00	48507
LEAD	0.002		COPPER	0.07	48507
LEAD	0.002		COPPER	0.15	48507
LEAD	0.002		COPPER	0.07	48507
LEAD	0.002		COPPER	0.07	48507
LEAD	0.002		COPPER	0.06	48507
LEAD	0.002		COPPER	0.00	48507
LEAD	0.003		COPPER	0.12	48507
LEAD	0.003		COPPER	0.37	48507
LEAD	0.003		COPPER	0.08	48507
LEAD	0.004		COPPER	0.11	48507
LEAD	0.004		COPPER	0.09	48507
LEAD	0.005		COPPER	0.00	48507
LEAD	0.005		COPPER	0.08	48507
LEAD	0.005		COPPER	0.08	48507
LEAD	0.005		COPPER	0.07	48507
LEAD	0.005		COPPER	0.00	48507
LEAD	0.005		COPPER	0.00	48507
LEAD	0.007		COPPER	0.30	48507
LEAD	0.007		COPPER	0.05	48507
LEAD	0.008		COPPER	0.08	48507
LEAD	0.009		COPPER	0.00	48507
LEAD	0.010		COPPER	0.07	48507
LEAD	0.013		COPPER	0.12	48507
LEAD	0.014		COPPER	0.23	48507
LEAD	0.021		COPPER	0.08	48507
LEAD	0.074		COPPER	0.09	48507
LEAD	0.151		COPPER	0.14	48507
LEAD	0.000		COPPER	0.17	48532
LEAD	0.000		COPPER	0.07	48532
LEAD	0.000		COPPER	0.00	48532
LEAD	0.000		COPPER	0.43	48532
LEAD	0.000		COPPER	0.08	48532
LEAD	0.002		COPPER	0.22	48532
LEAD	0.026		COPPER	0.06	48532
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.13	
LEAD	0.000		COPPER	0.00	
LEAD	0.001		COPPER	0.58	
LEAD	0.001		COPPER	0.00	
LEAD	0.002		COPPER	0.00	
LEAD	0.002		COPPER	0.00	
LEAD	0.003		COPPER	0.00	
LEAD	0.003		COPPER	0.42	

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.004		COPPER	0.00	
LEAD	0.004		COPPER	0.00	
LEAD	0.005		COPPER	0.00	
LEAD	0.008		COPPER	0.07	
LEAD	0.009		COPPER	0.00	
LEAD	0.012		COPPER	0.15	
LEAD	0.019		COPPER	1.22	
LEAD	0.020		COPPER	0.21	
LEAD	0.027		COPPER	0.05	
LEAD	0.078		COPPER	0.27	

NOTES:

1 PPB = 0.001 mg/L

Lead values exceeding 0.015 mg/L and Copper results exceeding 1.3 mg/L are highlighted in red.

Sample results of "Not Detected" have been replaced with a numerical value of zero for ease of sorting.

Samples without a zip code did not have one provided on the accompanying paperwork.

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.22	48503
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.14	48504
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.05	48506
LEAD	0.000		COPPER	0.27	48507
LEAD	0.000		COPPER	0.33	48503
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.08	48504
LEAD	0.000		COPPER	0.17	48532
LEAD	0.000		COPPER	0.07	48532
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.36	48503
LEAD	0.000		COPPER	0.17	48507
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48505
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.06	48505
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.34	48503
LEAD	0.000		COPPER	0.49	48503
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.50	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.08	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.26	48506
LEAD	0.000		COPPER	0.11	48506
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.00	48532
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.34	48502

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.09	48506
LEAD	0.000		COPPER	0.24	48505
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.23	48504
LEAD	0.000		COPPER	0.15	48504
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.05	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48505
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.15	48503
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.07	48507
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.00	48505
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.06	48507
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.19	48502
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.52	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.43	48532
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.05	48504
LEAD	0.000		COPPER	0.61	48503
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.13	
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.56	48503
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.59	48503
LEAD	0.000		COPPER	0.53	48503
LEAD	0.000		COPPER	0.61	48503
LEAD	0.000		COPPER	0.63	48503
LEAD	0.000		COPPER	0.71	48503
LEAD	0.000		COPPER	0.67	48503
LEAD	0.000		COPPER	0.45	48503
LEAD	0.000		COPPER	0.91	48503
LEAD	0.000		COPPER	0.80	48503
LEAD	0.000		COPPER	0.80	48503
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.00	48507

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.000		COPPER	0.08	48532
LEAD	0.000		COPPER	0.00	48506
LEAD	0.000		COPPER	0.41	48507
LEAD	0.000		COPPER	0.00	48507
LEAD	0.000		COPPER	0.07	48506
LEAD	0.000		COPPER	0.00	
LEAD	0.000		COPPER	0.06	48506
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48504
LEAD	0.000		COPPER	0.57	48504
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.00	48503
LEAD	0.000		COPPER	0.32	48507
LEAD	0.000		COPPER	0.00	48503
LEAD	0.001		COPPER	0.00	48503
LEAD	0.001		COPPER	0.00	48503
LEAD	0.001		COPPER	0.00	48505
LEAD	0.001		COPPER	0.34	48503
LEAD	0.001		COPPER	0.00	48502
LEAD	0.001		COPPER	0.00	48505
LEAD	0.001		COPPER	0.00	48503
LEAD	0.001		COPPER	0.07	48506
LEAD	0.001		COPPER	0.07	48504
LEAD	0.001		COPPER	0.00	48507
LEAD	0.001		COPPER	0.05	48503
LEAD	0.001		COPPER	0.00	48507
LEAD	0.001		COPPER	0.50	48503
LEAD	0.001		COPPER	0.00	48506
LEAD	0.001		COPPER	0.00	48505
LEAD	0.001		COPPER	0.00	48506
LEAD	0.001		COPPER	0.06	48506
LEAD	0.001		COPPER	0.11	48503
LEAD	0.001		COPPER	0.63	48503
LEAD	0.001		COPPER	0.00	48507
LEAD	0.001		COPPER	0.00	48506
LEAD	0.001		COPPER	0.58	48506
LEAD	0.001		COPPER	0.00	48503
LEAD	0.001		COPPER	0.05	48506
LEAD	0.001		COPPER	0.59	48502
LEAD	0.001		COPPER	0.05	48505
LEAD	0.001		COPPER	0.06	48505
LEAD	0.001		COPPER	0.12	48504
LEAD	0.001		COPPER	0.13	48503
LEAD	0.001		COPPER	0.58	
LEAD	0.001		COPPER	0.00	
LEAD	0.001		COPPER	0.00	48507
LEAD	0.001		COPPER	0.63	48503
LEAD	0.001		COPPER	0.00	48503
LEAD	0.001		COPPER	0.33	48503
LEAD	0.001		COPPER	0.46	48503
LEAD	0.001		COPPER	0.16	48504
LEAD	0.001		COPPER	0.00	48503
LEAD	0.001		COPPER	0.00	48507

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.001		COPPER	0.22	48503
LEAD	0.001		COPPER	0.19	48503
LEAD	0.001		COPPER	0.19	48503
LEAD	0.001		COPPER	0.05	48503
LEAD	0.001		COPPER	0.00	48503
LEAD	0.002		COPPER	0.08	48503
LEAD	0.002		COPPER	0.05	48504
LEAD	0.002		COPPER	0.07	48503
LEAD	0.002		COPPER	0.00	
LEAD	0.002		COPPER	0.06	48506
LEAD	0.002		COPPER	0.11	48503
LEAD	0.002		COPPER	0.00	48504
LEAD	0.002		COPPER	0.07	48507
LEAD	0.002		COPPER	0.15	48507
LEAD	0.002		COPPER	0.06	48504
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.00	48504
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.22	48532
LEAD	0.002		COPPER	0.41	48503
LEAD	0.002		COPPER	0.92	48502
LEAD	0.002		COPPER	0.15	48504
LEAD	0.002		COPPER	0.15	48503
LEAD	0.002		COPPER	0.08	48503
LEAD	0.002		COPPER	0.00	48504
LEAD	0.002		COPPER	0.13	48503
LEAD	0.002		COPPER	0.00	48504
LEAD	0.002		COPPER	0.65	48505
LEAD	0.002		COPPER	0.10	48504
LEAD	0.002		COPPER	0.54	48503
LEAD	0.002		COPPER	0.72	48503
LEAD	0.002		COPPER	0.07	48507
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.00	48502
LEAD	0.002		COPPER	0.25	48503
LEAD	0.002		COPPER	0.10	48504
LEAD	0.002		COPPER	0.15	48506
LEAD	0.002		COPPER	0.07	48507
LEAD	0.002		COPPER	0.09	48503
LEAD	0.002		COPPER	0.00	48504
LEAD	0.002		COPPER	0.06	48506
LEAD	0.002		COPPER	0.55	48506
LEAD	0.002		COPPER	0.31	48503
LEAD	0.002		COPPER	0.06	48507
LEAD	0.002		COPPER	0.00	48506
LEAD	0.002		COPPER	0.11	48506
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.19	48502
LEAD	0.002		COPPER	0.62	48503
LEAD	0.002		COPPER	0.00	48507
LEAD	0.002		COPPER	0.18	48503

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.002		COPPER	0.00	
LEAD	0.002		COPPER	0.18	48503
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.07	48503
LEAD	0.002		COPPER	0.14	48504
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.00	48504
LEAD	0.002		COPPER	0.14	48503
LEAD	0.002		COPPER	0.00	48503
LEAD	0.002		COPPER	0.11	48503
LEAD	0.003		COPPER	0.37	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.10	48503
LEAD	0.003		COPPER	0.00	48504
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.12	48507
LEAD	0.003		COPPER	0.06	48504
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.37	48507
LEAD	0.003		COPPER	0.15	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.06	48506
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.00	48506
LEAD	0.003		COPPER	0.16	48503
LEAD	0.003		COPPER	0.00	48503
LEAD	0.003		COPPER	0.18	48504
LEAD	0.003		COPPER	0.00	
LEAD	0.003		COPPER	0.11	48503
LEAD	0.003		COPPER	0.42	
LEAD	0.003		COPPER	0.19	48504
LEAD	0.003		COPPER	0.12	48503
LEAD	0.003		COPPER	0.08	48503
LEAD	0.003		COPPER	0.08	48507
LEAD	0.003		COPPER	0.10	48505
LEAD	0.004		COPPER	0.00	48503
LEAD	0.004		COPPER	0.16	48503
LEAD	0.004		COPPER	0.00	48502
LEAD	0.004		COPPER	0.12	48504
LEAD	0.004		COPPER	0.23	48503
LEAD	0.004		COPPER	0.00	48503
LEAD	0.004		COPPER	0.00	48503
LEAD	0.004		COPPER	0.00	48503
LEAD	0.004		COPPER	0.09	48505
LEAD	0.004		COPPER	0.11	48506
LEAD	0.004		COPPER	0.08	48504
LEAD	0.004		COPPER	0.11	48507
LEAD	0.004		COPPER	0.06	48503

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.004		COPPER	0.00	
LEAD	0.004		COPPER	0.24	48503
LEAD	0.004		COPPER	0.07	48503
LEAD	0.004		COPPER	0.09	48507
LEAD	0.004		COPPER	0.00	48503
LEAD	0.004		COPPER	0.00	48504
LEAD	0.004		COPPER	0.07	48503
LEAD	0.004		COPPER	0.22	48503
LEAD	0.004		COPPER	0.00	48503
LEAD	0.004		COPPER	0.00	48504
LEAD	0.004		COPPER	0.00	48505
LEAD	0.004		COPPER	0.00	
LEAD	0.005		COPPER	0.00	48503
LEAD	0.005		COPPER	0.00	48507
LEAD	0.005		COPPER	0.05	48503
LEAD	0.005		COPPER	0.00	48503
LEAD	0.005		COPPER	0.00	48503
LEAD	0.005		COPPER	0.09	48503
LEAD	0.005		COPPER	0.00	48503
LEAD	0.005		COPPER	0.00	
LEAD	0.005		COPPER	0.08	48507
LEAD	0.005		COPPER	0.06	48503
LEAD	0.005		COPPER	0.08	48507
LEAD	0.005		COPPER	0.07	48507
LEAD	0.005		COPPER	0.24	48503
LEAD	0.005		COPPER	0.00	48503
LEAD	0.005		COPPER	0.50	48504
LEAD	0.005		COPPER	0.00	48507
LEAD	0.005		COPPER	0.00	48507
LEAD	0.005		COPPER	0.00	48503
LEAD	0.006		COPPER	0.00	48505
LEAD	0.006		COPPER	0.07	48503
LEAD	0.006		COPPER	0.00	48503
LEAD	0.006		COPPER	0.10	48503
LEAD	0.006		COPPER	0.15	48503
LEAD	0.006		COPPER	0.07	48503
LEAD	0.006		COPPER	0.11	48503
LEAD	0.006		COPPER	0.00	48503
LEAD	0.006		COPPER	0.00	48506
LEAD	0.006		COPPER	0.00	48504
LEAD	0.006		COPPER	0.16	48506
LEAD	0.006		COPPER	0.00	48503
LEAD	0.006		COPPER	0.32	48504
LEAD	0.006		COPPER	0.00	48503
LEAD	0.006		COPPER	0.00	48504
LEAD	0.006		COPPER	0.00	48503
LEAD	0.006		COPPER	0.00	48506
LEAD	0.007		COPPER	0.00	48503
LEAD	0.007		COPPER	0.00	48504
LEAD	0.007		COPPER	0.20	48505
LEAD	0.007		COPPER	0.41	48503
LEAD	0.007		COPPER	0.00	48503
LEAD	0.007		COPPER	0.30	48507

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.007		COPPER	0.08	48505
LEAD	0.007		COPPER	0.05	48507
LEAD	0.007		COPPER	0.22	48503
LEAD	0.008		COPPER	0.15	48504
LEAD	0.008		COPPER	1.11	48503
LEAD	0.008		COPPER	0.07	
LEAD	0.008		COPPER	0.06	48505
LEAD	0.008		COPPER	0.08	48507
LEAD	0.008		COPPER	0.07	48503
LEAD	0.008		COPPER	0.00	48503
LEAD	0.008		COPPER	0.36	48503
LEAD	0.008		COPPER	0.00	48504
LEAD	0.009		COPPER	0.17	48503
LEAD	0.009		COPPER	0.07	48503
LEAD	0.009		COPPER	0.00	48507
LEAD	0.009		COPPER	0.00	
LEAD	0.009		COPPER	0.25	48504
LEAD	0.010		COPPER	0.09	48506
LEAD	0.010		COPPER	0.00	48503
LEAD	0.010		COPPER	0.16	48503
LEAD	0.010		COPPER	0.00	48505
LEAD	0.010		COPPER	0.07	48507
LEAD	0.011		COPPER	0.00	48503
LEAD	0.011		COPPER	0.00	48504
LEAD	0.011		COPPER	0.18	48503
LEAD	0.012		COPPER	0.15	
LEAD	0.012		COPPER	0.00	48506
LEAD	0.012		COPPER	0.06	48504
LEAD	0.013		COPPER	0.12	48507
LEAD	0.013		COPPER	0.00	48505
LEAD	0.014		COPPER	0.23	48507
LEAD	0.015		COPPER	0.00	48503
LEAD	0.015		COPPER	0.00	48504
LEAD	0.016		COPPER	0.07	48506
LEAD	0.016		COPPER	0.06	48503
LEAD	0.016		COPPER	0.00	48503
LEAD	0.017		COPPER	1.38	48506
LEAD	0.017		COPPER	0.17	48506
LEAD	0.018		COPPER	0.29	48503
LEAD	0.019		COPPER	1.22	
LEAD	0.019		COPPER	0.07	48506
LEAD	0.020		COPPER	0.13	48503
LEAD	0.020		COPPER	0.21	
LEAD	0.021		COPPER	0.08	48507
LEAD	0.021		COPPER	0.06	48503
LEAD	0.026		COPPER	0.06	48532
LEAD	0.027		COPPER	0.08	48505
LEAD	0.027		COPPER	0.05	
LEAD	0.028		COPPER	0.00	48503
LEAD	0.030		COPPER	0.00	48503
LEAD	0.035		COPPER	2.57	48505
LEAD	0.036		COPPER	0.00	48503
LEAD	0.041		COPPER	1.04	48504

ANALYTE (Pb)	RESULT (mg/L)		ANALYTE (Cu)	RESULT (mg/L)	ZIP CODE
LEAD	0.053		COPPER	0.07	48503
LEAD	0.074		COPPER	0.09	48507
LEAD	0.075		COPPER	0.57	48503
LEAD	0.078		COPPER	0.27	
LEAD	0.088		COPPER	0.09	48503
LEAD	0.116		COPPER	0.13	48503
LEAD	0.131		COPPER	0.55	48503
LEAD	0.151		COPPER	0.14	48507
LEAD	0.252		COPPER	0.18	48503
LEAD	0.327		COPPER	0.19	48503

NOTES:

1 PPB = 0.001 mg/L

Lead values exceeding 0.015 mg/L and Copper results exceeding 1.3 mg/L are highlighted in red.

Sample results of "Not Detected" have been replaced with a numerical value of zero for ease of sorting.

Samples without a zip code did not have one provided on the accompanying paperwork.

From:	Wyant, Dan (DEQ)
Sent:	Monday, November 16, 2015 3:21 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS)
Subject:	2015-11-16 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-11-16 Action Steps Week of November 9-13.pdf; 2015-11-16 Flint Drinking Water Action Plan Update.pdf; Brownell K-2 STEM Academy Lead Data.pdf; Eisenhower Elementary School Lead Data.pdf
Importance:	High

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. Action Steps Updated Document for the week of November 9-13, 2015
2. Flint Drinking Water Action Plan Update
3. Brownelll K-2 STEM Academy Lead Data
4. Eisenhower Elementary School Lead Data

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions.

Morgan, When sending these lead data results to the Governor, you may want to consider keeping documents 3 and 4 as separate pdfs for the Governor, in lieu of assembling them all together in one pdf, but I'll make that your call. (Thanks, Mary Beth)

Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of November 9-13

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Conduct After Action Plan	DEQ	George Krisztian	Meeting held on 10/29/15 to discuss time line
2.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Meeting scheduled among DEQ staff for 11/20/15 to discuss draft changes
3.	Assist Governor's Flint Water Task Force	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	Draft time line shared with Task Force on 11/13/15
4.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	Negotiations underway to contract with the Genesee County Health Department
5.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	
6.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
7.	Follow up with city of Flint regarding corrosion control treatment and their plans to address requirements and options provided for in 10/30/15 DEQ letter	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Discussed with Flint's Technical Advisory Committee on 11/9/15

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
8.	Follow-up with city of Flint regarding installation of corrosion control	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Chemical feed pumps have been ordered; currently installing feed system piping and water booster pumps; and city of Flint anticipates operation by end of November
9.	Review Monthly Operation Reports (MORs) for Standby Operation of Flint Water Treatment Plant with city of Flint; draft letter to city of Flint documenting standby operation requirements	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Letter is drafted and will be sent to city of Flint the week of 11/9/15
10.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues; check weekly for status update	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Discussed during 11/9/15 Flint Technical Advisory Committee meeting; Genesee County is working on issues with Lapeer County Road Commission
11.	Continue evaluating city of Flint service line record status and comparison to sampling pool	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	Letter provided to city of Flint on 11/9/15; response due to DEQ by 12/30/15
12.	Provide DHHS with any available cross-reference information regarding lead service lines and plumbing materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
13.	Develop draft sampling protocol for residential exposure assessment for DHHS	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	Draft sampling protocol shared with DHHS on 11/10/15

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
14.	Make progress on drafting a generic school sampling guidance document for statewide distribution; target audience: schools served by municipal water	DEQ and DLARA	Jim Sygo Steve Busch Richard Benzie	Draft document under development to make it an easy-to-read and follow guidance document
15.	Attend Flint Technical Advisory Committee meeting on 11/9/15	DEQ	Jim Sygo Mike Prysby	Attended by Jim Sygo and Mike Prysby; presented DEQ's findings of lead sampling at Freeman Elementary School
16.	Draft summary reports for Brownell K-2 STEM Academy and Eisenhower Elementary School	DEQ and DLARA	George Krisztian Steve Busch	
17.	Conduct plumbing assessments at Durant-Tuuri-Mott Elementary School and Central Kitchen	DEQ and DLARA	George Krisztian Steve Busch	DEQ and DLARA completed plumbing assessments on 11/13/15
18.	Conduct sampling at Durant-Tuuri-Mott Elementary School and Central Kitchen	DEQ and DLARA	Jim Sygo George Krisztian Mike Prysby	DEQ and DLARA completed sampling on 11/14/15
19.	Evaluate laboratory analysis and perform data compilation for Doyle/Ryder Elementary School and Pierce Elementary School	DEQ	George Krisztian Steve Busch Mike Prysby	

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

Key Actions:

- The Flint Technical Advisory Committee (TAC) meeting was held on November 9. The meeting included representatives from the EPA, DEQ, DHHS, and city of Flint, as well as other interested parties. Representatives from the city of Flint indicated that they were modifying the sampling protocol instructions to remove a reference to pre-flushing of service lines just prior to the beginning of the stagnation period for samples being utilized for compliance with the lead and copper rule. An update was given regarding a water plan that outlines short-term, intermediate term, and long-term goals that the city of Flint is working on in order to get switched over to the Karegnondi Water Authority. DEQ staff discussed corrosion control dosages and monitoring requirements in detail with the city of Flint and its consultants. Representatives from EPA reiterated the need for higher dosages of phosphate in order to expedite the formation of a protective layer in the city of Flint's water distribution system. This would be a supplemental addition of phosphate to the water coming from Detroit that only contains what is considered to be a maintenance dose.

- The samples for Brownell K-2 STEM Academy and Eisenhower Elementary School were analyzed and the data consolidated into spreadsheets. The results for both schools parallel the results found at Freeman Elementary School, in that the issues appear to be primarily located at the fixture. The percentage of locations needing corrective action appears to be greater than what was found at Freeman. Work has begun on putting together reports that provide recommendations for addressing the issues that were found. Once the reports have been completed, they will be shared with the Flint Community Schools Superintendent, and then the reports will be published to the Flint water Web site: www.mi.gov/flintwater.

- The water samples for Doyle/Ryder Elementary School and Pierce Elementary School have been analyzed. The results for these schools are currently being compiled and evaluated.

Positions:

- There are no new positions to report since last week.

Concerns:

- A Notice of Intent to Sue has been received from the Natural Resources Defense Council and the American Civil Liberties Union of Michigan. The subject reads:

Notice of Intent to Sue Under the Safe Drinking Water Act, 42 U.S.C. § 300j-8(b)(1)(a), for Failure to Control Lead in Drinking Water in Flint, Michigan, and Failure to Assist Michigan Schools with Lead Testing and Remediation

- A letter was sent by the DEQ on November 9 requesting the city of Flint to provide additional information and documentation concerning discrepancies between the water service line material reported in the lead/copper reporting forms and the water service line material reported in digitized water service index cards. The city of Flint must also complete the correlation for all of the remaining lead/copper sampling locations that were used since the start of monitoring under the lead and copper rule in 1992. Any additional further discrepancies must be explained. The city must complete this task by December 30. The existence of these discrepancies has been made public by the media.

Significant Events:

- A Frequently Asked Questions document has been prepared to address key events and decisions surrounding the Flint water situation. This document is being presented to the Governor's Flint Water Task Force to assist in providing key information to the investigation.

- DEQ Director Dan Wyant was interviewed by Rochelle Riley, *Detroit Free Press*, on November 10. Topics of discussion included the results from Freeman Elementary School and short-term, intermediate term, and long-term plans to address issues with Flint's water supply, as well as a discussion of corrosion controls and how they will be implemented moving forward.

- DEQ Flint Action Plan Coordinator George Krisztian was interviewed by NBC News 25 on November 11. The main topic of conversation was the results from Freeman Elementary School. The main point was that the results clearly indicated that the issues at the school were fixture-specific and were not deep within the plumbing infrastructure.

Changes from Previous Report:

- A meeting is scheduled for November 20 among DEQ staff to discuss draft legislative changes to Part 54 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

- The draft time line was shared with the Governor's Flint Water Task Force on November 13.

- DEQ staff discussed corrosion control dosages and monitoring requirements in more detail with the city of Flint and their consultant during the November 9 Flint TAC meeting. Orthophosphate dosage concerns brought to the table by the city of Flint's consultant were addressed by DEQ and EPA staff.

- DEQ staff followed up with the city of Flint during the November 9 TAC meeting regarding installation of corrosion control and confirmed that the chemical feed pumps have been ordered and delivery is approximately two weeks out. The Flint Water Treatment Plant (WTP) operators are currently installing the feed system piping and water booster pumps. The city of Flint anticipates having the corrosion control feed system installed and ready for operation by the end of November.

- DEQ staff has drafted a letter that establishes standby operation (test run) requirements for the Flint WTP, based upon the city's previous test run Monthly Operation Reports. The draft letter also discusses the potential for Flint to obtain a limited supply of raw water directly to the Flint WTP from the Karegnondi Water Authority prior to spring 2016 for treatment evaluation. The draft letter will be finalized and sent to the city of Flint the week of November 16.

- DEQ staff discussed with Genesee County during the November 9 TAC meeting the most recent stop work orders issued by the Lapeer County Road Commission (LCRC). Genesee County is continuing to install the pipeline and is working with the LCRC to correct the soil erosion control issues. Genesee County has not expressed a concern of this delaying their construction schedule.

- The DEQ sent a letter to the city of Flint on November 9. The letter requests the city of Flint to provide additional information/documentation concerning discrepancies between the water service line material reported in the lead/copper reporting forms and the water service line material reported in digitized water service index cards. The city of Flint must also complete the correlation for all of the remaining lead/copper sampling locations that were used since the start of monitoring under the lead and copper rule in 1992. Any additional further discrepancies must be explained. The city of Flint must complete this task by December 30.

- The draft sampling protocol was shared with DHHS on November 10.

- DEQ staff, Jim Sygo and Michael Prysby, attended the November 9 Flint TAC meeting as described above. Chief Deputy Director Sygo also presented DEQ's findings of the results of the lead sampling conducted at Freeman Elementary School.

- DEQ and DLARA staff completed plumbing assessments at Durant-Tuuri-Mott Elementary School and the central kitchen on November 13.

- DEQ staff conducted water sampling at Durant-Tuuri-Mott Elementary School and the central kitchen on November 14.

Other Items:

- As provided by the DHHS, the purchased total water filter/pitcher distribution through November 13 is approximately 14,000 units.

- Attached are the draft spreadsheets that consolidate the lead data for Brownell K-2 STEM Academy and Eisenhower Elementary School.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
November 16, 2015

SAMPLE NUMBER	ANALYTE	RESULT	Sample Description	SampleCollector	Site Code
LF89583	Lead	0.027	DW013-DRINKING FOUNTAIN	TJD / GLK	P1
LF89584	Lead	0.015	DW013-DRINKING FOUNTAIN	TJD / GLK	P2
LF89585	Lead	0.008	DW013-DRINKING FOUNTAIN	TJD / GLK	F01
LF89586	Lead	0.002	DW013-DRINKING FOUNTAIN	TJD / GLK	F02
LF89587	Lead	0.038	DW021-DRINKING FOUNTAIN	TJD / GLK	P1
LF89588	Lead	0.027	DW021-DRINKING FOUNTAIN	TJD / GLK	P2
LF89589	Lead	0.002	DW021-DRINKING FOUNTAIN	TJD / GLK	F01
LF89590	Lead	0.002	DW021-DRINKING FOUNTAIN	TJD / GLK	D02
LF89591	Lead	0.008	CF023-RM #7	TJD / GLK	P1
LF89592	Lead	0.012	CF023-RM #7	TJD / GLK	P2
LF89593	Lead	0.000	CF023-RM #7	TJD / GLK	F01
LF89594	Lead	0.000	CF023-RM #7	TJD / GLK	F02
LF89595	Lead	0.016	DW014-DRINKING FOUNTAIN	TJD / GLK	P1
LF89596	Lead	0.003	DW014-DRINKING FOUNTAIN	TJD / GLK	P2
LF89597	Lead	0.002	DW014-DRINKING FOUNTAIN	TJD / GLK	F01
LF89598	Lead	0.001	DW014-DRINKING FOUNTAIN	TJD / GLK	F02
LF89599	Lead	0.016	KC019-RM #4	TJD / GLK	P1
LF89600	Lead	0.010	KC019-RM #4	TJD / GLK	P2
LF89601	Lead	0.000	KC019-RM #4	TJD / GLK	F01
LF89602	Lead	0.000	KC019-RM #4	TJD / GLK	F02
LF89603	Lead	0.033	DW020-DRINKING FOUNTAIN	TJD / GLK	P1
LF89604	Lead	0.015	DW020-DRINKING FOUNTAIN	TJD / GLK	P2
LF89605	Lead	0.020	DW020-DRINKING FOUNTAIN	TJD / GLK	F01
LF89606	Lead	0.002	DW020-DRINKING FOUNTAIN	TJD / GLK	F02
LF89607	Lead	0.012	DW002-DRINKING FOUNTAIN	TJD / GLK	P1
LF89608	Lead	0.007	DW002-DRINKING FOUNTAIN	TJD / GLK	P2
LF89609	Lead	0.004	DW002-DRINKING FOUNTAIN	TJD / GLK	F01
LF89610	Lead	0.001	DW002-DRINKING FOUNTAIN	TJD / GLK	F02
LF89611	Lead	0.011	CF022-RM #6	TJD / GLK	P1
LF89612	Lead	0.006	CF022-RM #6	TJD / GLK	P2
LF89613	Lead	0.002	CF022-RM #6	TJD / GLK	F01
LF89614	Lead	0.000	CF022-RM #6	TJD / GLK	F02
LF89615	Lead	0.009	CF006-RM 26	TJD / GLK	P1
LF89616	Lead	0.010	CF006-RM 26	TJD / GLK	P2
LF89617	Lead	0.004	CF006-RM 26	TJD / GLK	F01
LF89618	Lead	0.000	CF006-RM 26	TJD / GLK	F02
LF89619	Lead	0.056	CF004 RM 17	TJD / GLK	P1
LF89620	Lead	0.029	CF004-RM 17	TJD / GLK	P2
LF89621	Lead	0.007	CF004-RM 17	TJD / GLK	F01
LF89622	Lead	0.003	CF004-RM 17	TJD / GLK	F02
LF89623	Lead	0.011	KC016-RM-#1	TJD / GLK	P1
LF89624	Lead	0.003	KC016-RM-#1	TJD / GLK	P2
LF89625	Lead	0.002	KC016-RM-#1	TJD / GLK	F01
LF89626	Lead	0.000	KC016-RM-#1	TJD / GLK	F02
LF89627	Lead	0.013	KC017-RM #2	TJD / GLK	P1
LF89628	Lead	0.008	KC017-RM #2	TJD / GLK	P2
LF89629	Lead	0.001	KC017-RM #2	TJD / GLK	F01
LF89630	Lead	0.000	KC017-RM #2	TJD / GLK	F02
LF89631	Lead	0.010	CF018-RM #4	TJD / GLK	P1
LF89632	Lead	0.007	CF018-RM #4	TJD / GLK	P2
LF89633	Lead	0.000	CF018-RM #4	TJD / GLK	F01
LF89634	Lead	0.000	CF018-RM #4	TJD / GLK	F02

LF89635	Lead	0.007	KC015-RM #1	TJD / GLK	P1
LF89636	Lead	0.002	KC015-RM #1	TJD / GLK	P2
LF89637	Lead	0.002	KC015-RM #1	TJD / GLK	F01
LF89638	Lead	0.002	KC015-RM #1	TJD / GLK	F02
LF89639	Lead	0.031	CF005-RM 17	TJD / GLK	P1
LF89640	Lead	0.006	CF005-RM 17	TJD / GLK	P2
LF89641	Lead	0.002	CF005-RM 17	TJD / GLK	F01
LF89642	Lead	0.001	CF005-RM 17	TJD / GLK	F02
LF89643	Lead	0.064	DW001-DRINKING FOUNTAIN	TJD / GLK	P1
LF89644	Lead	0.004	DW001-DRINKING FOUNTAIN	TJD / GLK	P2
LF89645	Lead	0.002	DW001-DRINKING FOUNTAIN	TJD / GLK	F01
LF89646	Lead	0.000	DW001-DRINKING FOUNTAIN	TJD / GLK	F02
LF89647	Lead	0.023	DW009-DRINKING FOUNTAIN	TJD / GLK	P1
LF89648	Lead	0.007	DW009-DRINKING FOUNTAIN	TJD / GLK	P2
LF89649	Lead	0.003	DW009-DRINKING FOUNTAIN	TJD / GLK	F01
LF89650	Lead	0.002	DW009-DRINKING FOUNTAIN	TJD / GLK	F02
LF89651	Lead	0.025	CF010-RM 27	TJD / GLK	P1
LF89652	Lead	0.034	CF010-RM 27	TJD / GLK	P2
LF89653	Lead	0.002	CF010-RM 27	TJD / GLK	F01
LF89654	Lead	0.000	CF010-RM 27	TJD / GLK	F02
LF89655	Lead	0.164	CF007-RM 26	TJD / GLK	P1
LF89656	Lead	0.166	CF007-RM 26	TJD / GLK	P2
LF89657	Lead	0.015	CF007-RM 26	TJD / GLK	F01
LF89658	Lead	0.001	CF007-RM 26	TJD / GLK	F02
LF89659	Lead	0.007	CF003-RM 15	TJD / GLK	P1
LF89660	Lead	0.011	CF003 RM 15	TJD / GLK	P2
LF89661	Lead	0.001	CF003-RM 15	TJD / GLK	F01
LF89662	Lead	0.000	CF003-RM 15	TJD / GLK	F02
LF89663	Lead	0.000	CF012	TJD / GLK	P1
LF89664	Lead	0.014	CF012	TJD / GLK	P2
LF89665	Lead	0.000	CF012	TJD / GLK	F01
LF89666	Lead	0.000	CF012	TJD / GLK	F02
LF89667	Lead	0.011	WC011-DRINKING FOUNTAIN	TJD / GLK	P1
LF89668	Lead	0.014	WC011-DRINKING FOUNTAIN	TJD / GLK	P2
LF89669	Lead	0.014	WC011-DRINKING FOUNTAIN	TJD / GLK	F01
LF89670	Lead	0.002	WC011-DRINKING FOUNTAIN	TJD / GLK	F02
LF89671	Lead	0.046	DW008-DRINKING FOUNTAIN	TJD / GLK	P1
LF89672	Lead	0.011	DW008-DRINKING FOUNTAIN	TJD / GLK	P2
LF89673	Lead	0.004	DW008-DRINKING FOUNTAIN	TJD / GLK	F01
LF89674	Lead	0.001	DW008-DRINKING FOUNTAIN	TJD / GLK	F02
LF89694	Lead	0.010	CF004 - RM #17	TJD/GLK	CA1
LF89677	Lead	0.002	CF004 - RM #17	TJD/GLK	CA10
LF89702	Lead	0.003	CF004 - RM #17	TJD/GLK	CA2
LF89700	Lead	0.003	CF004 - RM #17	TJD/GLK	CA3
LF89691	Lead	0.003	CF004 - RM #17	TJD/GLK	CA4
LF89680	Lead	0.002	CF004 - RM #17	TJD/GLK	CA5
LF89693	Lead	0.002	CF004 - RM #17	TJD/GLK	CA6
LF89687	Lead	0.002	CF004 - RM #17	TJD/GLK	CA7
LF89688	Lead	0.002	CF004 - RM #17	TJD/GLK	CA8
LF89699	Lead	0.002	CF004 - RM #17	TJD/GLK	CA9
LF89695	Lead	0.002	CF012 -	TJD/GLK	CB1
LF89678	Lead	0.000	CF012	TJD/GLK	CB10
LF89689	Lead	0.000	CF012	TJD/GLK	CB2

LF89683	Lead	0.000	CF012	TJD/GLK	CB3
LF89676	Lead	0.000	CF012	TJD/GLK	CB4
LF89686	Lead	0.000	CF012	TJD/GLK	CB5
LF89696	Lead	0.000	CF012	TJD/GLK	CB6
LF89692	Lead	0.000	CF012	TJD/GLK	CB7
LF89681	Lead	0.000	CF012	TJD/GLK	CB8
LF89679	Lead	0.000	CF012	TJD/GLK	CB9
LF89697	Lead	0.002	CF023	TJD/GLK	CC1
LF89685	Lead	0.000	CF023	TJD/GLK	CC10
LF89701	Lead	0.000	CF023	TJD/GLK	CC2
LF89682	Lead	0.000	CF023	TJD/GLK	CC3
LF89690	Lead	0.000	CF023	TJD/GLK	CC4
LF89675	Lead	0.000	CF023	TJD/GLK	CC5
LF89698	Lead	0.000	CF023	TJD/GLK	CC6
LF89704	Lead	0.000	CF023	TJD/GLK	CC7
LF89684	Lead	0.000	CF023	TJD/GLK	CC8
LF89703	Lead	0.000	CF023	TJD/GLK	CC9

SAMPLE NUMBER	ANALYTE	RESULT	Sample Description	SampleCollector	Site Code
LF89705	Lead	0.036	01CF014 RM104	M PRYSBY/L GRAHAM	P1
LF89706	Lead	0.036	01CF014 RM104	M PRYSBY/L GRAHAM	P2
LF89707	Lead	0.002	01CF014 RM104	M PRYSBY/L GRAHAM	F-01
LF89708	Lead	0.001	01CF014 RM 104	M PRYSBY/L GRAHAM	F-02
LF89709	Lead	0.009	02CF021 RM201	M PRYSBY/L GRAHAM	P-1
LF89710	Lead	0.009	02CF021 RM201	M PRYSBY/L GRAHAM	P2
LF89711	Lead	0.000	02CF021 RM201	M PRYSBY/L GRAHAM	F-01
LF89712	Lead	0.000	02CF021 RM201	M PRYSBY/L GRAHAM	F-02
LF89713	Lead	0.012	02DW023 RM202	M PRYSBY/L GRAHAM	P1
LF89714	Lead	0.009	02DW023 RM202	M PRYSBY/L GRAHAM	P2
LF89715	Lead	0.001	02DW023 RM202	M PRYSBY/L GRAHAM	F-01
LF89716	Lead	0.000	02DW023 RM202	M PRYSBY/L GRAHAM	F-02
LF89717	Lead	0.013	01CF010RM102	M PRYSBY/L GRAHAM	P1
LF89718	Lead	0.002	01CF010RM102	M PRYSBY/LOIS GRAHAM	P2
LF89719	Lead	0.000	01CF010RM102	M PRYSBY/L GRAHAM	F01
LF89720	Lead	0.000	01CF010RM102	M PRYSBY/L GRAHAM	F02
LF89721	Lead	0.043	01DW013 RM104	M PRYSBY/L GRAHAM	P1
LF89722	Lead	0.106	01DW013 RM104	M PRYSBY/L GRAHAM	P2
LF89723	Lead	0.003	01DW013 RM104	M PRYSBY/L GRAHAM	F-01
LF89724	Lead	0.002	01DW013 - RM104	M PRYSBY/L GRAHAM	F-02
LF89725	Lead	0.037	02DW020 RM201	M PRYSBY/L GRAHAM	P1
LF89726	Lead	0.024	02DW020 RM201	M PRYSBY/L GRAHAM	P2
LF89727	Lead	0.002	02DW020 RM201	M PRYSBY/L GRAHAM	F-01
LF89728	Lead	0.000	02DW020 RM201	M PRYSBY/L GRAHAM	F-02
LF89729	Lead	0.012	01CF012 RM103	M PRYSBY/L GRAHAM	P1
LF89730	Lead	0.012	01CF012 RM103	M PRYSBY/L GRAHAM	P2
LF89731	Lead	0.003	01CF012 RM103	M PRYSBY/L GRAHAM	F-01
LF89732	Lead	0.002	01CF012 RM103	M PRYSBY/L GRAHAM	F-02
LF89733	Lead	0.009	01DW009 RM102	PRYSBY M/L GRAHAM	P1
LF89734	Lead	0.003	01DW009 RM102	M PRYSBY/L GRAHAM	P2
LF89735	Lead	0.000	01DW009 RM102	M PRYSBY/L GRAHAM	F-01
LF89736	Lead	0.000	01DW009 RM102	M PRYSBY/L GRAHAM	F-02
LF89737	Lead	0.013	01DW011 RM103	M PRYSBY/L GRAHAM	P1
LF89738	Lead	0.004	01DW0I1 RM103	M PRYSBY/L GRAHAM	P2
LF89739	Lead	0.002	01DW011 RM103	M PRYSBY/L GRAHAM	F-01
LF89740	Lead	0.001	01DW011 RM103	M PRYSBY/L GRAHAM	F-02
LF89741	Lead	0.007	02CF022 RM202	M PRYSBY/L GRAHAM	P-1
LF89742	Lead	0.024	O2CF022 - RM202	M PRYSBY	P2
LF89743	Lead	0.002	02CF022 - RM202	M PRYSBY/L GRAHAM	F-01
LF89744	Lead	0.001	02CF022 - RM202	M PRYSBY/L GRAHAM	F-02
LF89745	Lead	0.014	01CF008 RM101	M PRYSBY/L GRAHAM	P1
LF89746	Lead	0.011	01CF008 - RM101	M PRYSBY/L GRAHAM	P2
LF89747	Lead	0.001	01CF008 RM101	M PRYSBY/L GRAHAM	F-01
LF89748	Lead	0.001	01CF008 - RM101	M PRYSBY/L GRAHAM	F-02
LF89749	Lead	0.011	01DW007 RM101	M PRYSBY/L GRAHAM	P1
LF89750	Lead	0.010	01DW007 RM101	M PRYSBY/L GRAHAM	P2
LF89751	Lead	0.002	01DW007 RM101	M PRYSBY/L GRAHAM	F-01
LF89752	Lead	0.000	01DW007 RM101	M PRYSBY/L GRAHAM	F-02
LF89753	Lead	0.032	01DW001 GYM	M PRYSBY/L GRAHAM	P1
LF89754	Lead	0.006	01DW001 GYM	M PRYSBY/L GRAHAM	P2
LF89755	Lead	0.005	01DW001 GYM	M PRYSBY/L GRAHAM	F-01
LF89756	Lead	0.003	01DW001 GYM	M PRYSBY/L GRAHAM	F-02

LF89757	Lead	0.017	01CF004 ROIOM 109	M PRYSBY/L GRAHAM	P1
LF89758	Lead	0.010	01CF004 ROOM109	M PRYSBY/L GRAHAM	P2
LF89759	Lead	0.001	01CF004 ROOM109	M PRYSBY/L GRAHAM	F-01
LF89760	Lead	0.002	01CF004 ROOM109	M PRYSBY/L GRAHAM	F-02
LF89761	Lead	0.013	01DW003 ROOM109	PRYSBY M/L GRAHAM	P1
LF89762	Lead	0.003	01DW003 ROOM109	M PRYSBY/L GRAHAM	P2
LF89763	Lead	0.002	01DW003 ROOM109	M PRYSBY/L GRAHAM	F-01
LF89764	Lead	0.001	01DW003 ROOM109	M PRYSBY/L GRAHAM	F-02
LF89765	Lead	0.014	01CF006 CLINIC	M PRYSBY/L GRAHAM	P1
LF89766	Lead	0.003	01CF006 CLINIC	M PRYSBY/L GRAHAM	P2
LF89767	Lead	0.001	01CF006 CLINIC	M PRYSBY/L GRAHAM	F-01
LF89768	Lead	0.000	01CF006 CLINIC	M PRYSBY/L GRAHAM	F-02
LF89769	Lead	0.017	04KC043 UNIT2	M PRYSBY/L GRAHAM	P1
LF89770	Lead	0.003	04KC043 UNIT2	M PRYSBY/L GRAHAM	P2
LF89771	Lead	0.002	04KC043 UNIT 2	M PRYSBY/L GRAHAM	F-01
LF89772	Lead	0.003	04KC043-UNIT 2	M PRYSBY/L GRAHAM	F-02
LF89773	Lead	0.000	03DW039 - UNIT 1	M PRYSBY/L GRAHAM	P1
LF89774	Lead	0.000	03DW039 - UNIT 1	M PRYSBY/L GRAHAM	P2
LF89775	Lead	0.000	03DW039 - UNIT 1	M PRYSBY/L GRAHAM	F-01
LF89776	Lead	0.000	03DW039 - UNIT 1	M PRYSBY/L GRAHAM	F-02
LF89777	Lead	0.004	01KC005 - COMMUNITY	M PRYSBY/L GRAHAM	P1
LF89778	Lead	0.004	01KC005 COMMUNITY	M PRYSBY/L GRAHAM	P2
LF89779	Lead	0.001	01KC005 COMMUNITY	M PRYSBY/L GRAHAM	F-01
LF89780	Lead	0.000	01KC005 COMMUNITY	L GRAHAM/M PRYSBY	F-02
LF89781	Lead	0.017	01WC002 HALL	M PRYSBY/L GRAHAM	P1
LF89782	Lead	0.017	01WC002 HALL	M PRYSBY/L GRAHAM	P2
LF89783	Lead	0.012	01WC002 HALL	M PRYSBY/L GRAHAM	F-01
LF89784	Lead	0.003	01 WC002 HALL	M PRYSBY/L GRAHAM	F-02
LF89785	Lead	0.012	03KC041- UNIT 1	MIKE PRYSBY/LOIS	P1
LF89786	Lead	0.004	03KC041 - UNIT1	MIKE PRYSBY/LOIS	P2
LF89787	Lead	0.000	03KC041-UNIT1	MIKE PRYSBY/LOIS	F-01
LF89788	Lead	0.000	03KC041 - UNIT1	MIKE PRYSBY/LOIS	F-02
LF89789	Lead	0.005	03DW38 - UNIT1	M PRYSBY/L GRAHAM	P1
LF89790	Lead	0.001	03DW038 - UNIT 1	M PRYSBY/L GRAHAM	P2
LF89791	Lead	0.000	03DW038 - UNIT 1	M PRYSBY/L GRAHAM	F-01
LF89792	Lead	0.000	03DW038 UNIT1	M PRYSBY/L GRAHAM	F-02
LF89793	Lead	0.012	03KC040 UNIT 1	MIKE PRYSBY/LOIS	P1
LF89794	Lead	0.002	03KC040 UNIT1	MIKE PRYSBY/ LOIS	P2
LF89795	Lead	0.001	03KC040 UNIT 1	MIKE PRYSBY/LOIS	F-01
LF89796	Lead	0.000	03KC040 UNIT1	MIKE PRYSBY	F-02
LF89797	Lead	0.011	04KC044 - UNIT 2	M PRYSBY/L GRAHAM	P1
LF89798	Lead	0.003	04KC044 UNIT 2	M PRYSBY/L GRAHAM	P2
LF89799	Lead	0.001	04KC044 - UNIT 2	M PRYSBY/L GRAHAM	F-01
LF89800	Lead	0.000	04KC044 UNIT2	M PRYSBY/L GRAHAM	F-02
LF89801	Lead	0.007	02CF036 RM209	M PRYSBY/L GRAHAM	P7
LF89802	Lead	0.021	02CF036 RM209	M PRYSBY/L GRAHAM	P2
LF89803	Lead	0.005	02CF036 RM209	M PRYSBY/L GRAHAM	F07
LF89804	Lead	0.001	02CF036 RM209	M PRYSBY/L GRAHAM	F02
LF89805	Lead	0.012	02DW035 RM208	M PRYSBY/L GRAHAM	P1
LF89806	Lead	0.019	02DW035 RM208	M PRYSBY/L GRAHAM	P2
LF89807	Lead	0.006	02DW035 RM208	M PRYSBY/L GRAHAM	F01
LF89808	Lead	0.003	02DW035 RM208	M PRYSBY/L GRAHAM	F02
LF89809	Lead	0.019	02CF034 RM208	M PRYSBY/L GRAHAM	P1

LF89810	Lead	0.012	02CF034 RM208	M PRYSBY/L GRAHAM	P2
LF89811	Lead	0.003	02CF034 RM208	M PRYSBY/L GRAHAM	F01
LF89812	Lead	0.002	02CF034 RM 208	M PRYSBY/L GRAHAM	F02
LF89813	Lead	0.020	02DW033 RM207	M PRYSBY/L GRAHAM	P1
LF89814	Lead	0.004	02DW033 RM207	M PRYSBY/L GRAHAM	P2
LF89815	Lead	0.003	02DW033 RM207	M PRYSBY/L GRAHAM	F-01
LF89816	Lead	0.003	02DW033 RM207	M PRYSBY/L GRAHAM	F-02
LF89817	Lead	0.017	01KC019 RM108	M PRYSBY/L GRAHAM	P1
LF89818	Lead	0.005	01KC019 RM108	M PRYSBY/L GRAHAM	P2
LF89819	Lead	0.004	01KC019 RM108	M PRYSBY/L GRAHAM	F-01
LF89820	Lead	0.001	01KC019 RM108	M PRYSBY/L GRAHAM	F-02
LF89821	Lead	0.021	02CF032 RM207	M PRYSBY/L GRAHAM	P1
LF89822	Lead	0.023	02CF032 RM207	M PRYSBY/L GRAHAM	P2
LF89823	Lead	0.005	02CF032 RM207	M PRYSBY/L GRAHAM	F-01
LF89824	Lead	0.001	02CF032 RM207	M PRYSBY/L GRAHAM	F-02
LF89825	Lead	0.008	02DW037 RM209	M PRYSBY/L GRAHAM	P1
LF89826	Lead	0.002	02DW037 RM209	M PRYSBY/L GRAHAM	P2
LF89827	Lead	0.002	02DW037 RM209	M PRYSBY/L GRAHAM	F-01
LF89828	Lead	0.002	02DW037 RM209	M PRYSBY/L GRAHAM	F-02
LF89829	Lead	0.013	02DW025 RM203	PRSYBY M/L GRAHAM	P1
LF89830	Lead	0.004	02DW025 RM203	M PRYSBY/L GRAHAM	P2
LF89831	Lead	0.005	02DW025 RM203	M PRYSBY/L GRAHAM	F-01
LF89832	Lead	0.004	02DW025 RM203	PRYSBY M/L GRAHAM	F-02
LF89833	Lead	0.018	02DW027 RM204	PRYSBY M/L GRAHAM	P1
LF89834	Lead	0.008	02DW027 RM204	PRYSBY M/L GRAHAM	P2
LF89835	Lead	0.002	02DW027 RM204	M PRYSBY/L GRAHAM	F-01
LF89836	Lead	0.001	02DW027 RM204	M PRYSBY/L GRAHAM	F-02
LF89837	Lead	0.014	02CF026 - 4M 204	PRYSBY M/L GRAHAM	P1
LF89838	Lead	0.004	02CF026 RM204	PRYSBY M/L GRAHAM	P2
LF89839	Lead	0.000	02CF026 RM 204	M PRYSBY/L GRAHAM	F-01
LF89840	Lead	0.000	02CF026 RM204	M PRYSBY/L GRAHAM	F-02
LF89841	Lead	0.084	02DW031 RM206	M PRYSBY/ L GRAHAM	P1
LF89842	Lead	0.007	02DW031 RM206	M PRYSBY/ LGRAHAM	P2
LF89843	Lead	0.001	02DW031 RM206	M PRYSBY/L GRAHAM	F01
LF89844	Lead	0.000	02DW031 RM206	M PRYSBY/L GRAHAM	F02
LF89845	Lead	0.049	02DW029 RM205	M PRYSBY/L GRAHAM	P1
LF89846	Lead	0.014	02DW029 RM205	M PRYSBY/L GRAHAM	P2
LF89847	Lead	0.011	02DW029 RM205	M PRYSBY/L GRAHAM	F-01
LF89848	Lead	0.001	02DW029 RM205	M PRYSBY/L GRAHAM	F-02
LF89849	Lead	0.012	02CF028 RM205	M PRYSBY/L GRAHAM	P1
LF89850	Lead	0.005	02CF028 RM205	M PRYSBY/L GRAHAM	P2
LF89851	Lead	0.000	02CF028 RM205	M PRYSBY/L GRAHAM	F01
LF89852	Lead	0.000	02CF028 RM205	M PRYSBY/L GRAHAM	F02
LF89853	Lead	0.012	07DW017 RM107	M PRYSBY/L GRAHAM	P1
LF89854	Lead	0.009	01DW017 RM107	M PRYSBY/L GRAHAM	P2
LF89855	Lead	0.002	01DW017 RM107	M PRYSBY/L GRAHAM	F01
LF89856	Lead	0.001	01DW017 RM107	M PRYSBY/L GRAHAM	F02
LF89857	Lead	0.010	01DW015 RM106	M PRYSBY/L GRAHAM	P1
LF89858	Lead	0.002	01DW015 RM106	M PRYSBY/L GRAHAM	P2
LF89859	Lead	0.001	01DW015 RM106	M PRYSBY/L GRAHAM	F-01
LF89860	Lead	0.000	01DW015 RM106	M PRYSBY/L GRAHAM	F-02
LF89861	Lead	0.009	01CF018 RM107	M PRYSBY/L GRAHAM	P1
LF89862	Lead	0.006	01CF018 RM107	M PRYSBY/L GRAHAM	P2

LF89863	Lead	0.001	01CF018 RM107	M PRYSBY/L GRAHAM	F07
LF89864	Lead	0.000	01CF078 RM107	M PRYSBY/L GRAHAM	F02
LF89865	Lead	0.010	02CF030 RM206	M PRYSBY/L GRAHAM	P1
LF89866	Lead	0.008	02CF030 RM206	M PRYSBY/L GRAHAM	P2
LF89867	Lead	0.002	02CF030 RM206	M PRYSBY/L GRAHAM	F-01
LF89868	Lead	0.000	02CF030 RM206	M PRYSBY/L GRAHAM	F-02
LF89869	Lead	0.402	01CF016 - RM106	PRYSBY M/L GRAHAM	P1
LF89870	Lead	0.061	01CF016 - RM106	M PRYSBY/L GRAHAM	P2
LF89871	Lead	0.004	01CF016 - RM106	M PRYSBY/L GRAHAM	F-01
LF89872	Lead	0.001	01CF016 - RM106	M PRYSBY/L GRAHAM	F-02
LF89873	Lead	0.014	02CF024 RM203	M PRYSBY/L GRAHAM	P1
LF89874	Lead	0.015	02CF024 RM203	PRYSBY M/L GRAHAM	P2
LF89875	Lead	0.006	02CF024 RM203	PRYSBY M/L GRAHAM	F-01
LF89876	Lead	0.002	02CF024 RM203	PRYSBY M/L GRAHAM	F-02
LF89877	Lead	0.001	03KC040 - UNIT 1	M PRYSBY/L GRAHAM	A1
LF89878	Lead	0.000	03KC040 - UNIT 1	M PRYSBY/L GRAHAM	A2
LF89879	Lead	0.000	03KC040 - UNIT 1	M PRYSBY/L GRAHAM	A3
LF89880	Lead	0.000	03KC040 - UNIT 1	M PRYSBY/L GRAHAM	A4
LF89881	Lead	0.000	03KC040 - UNIT 1	M PRYSBY/L GRAHAM	A5
LF89882	Lead	0.000	03KC040 - UNIT 1	M PRYSBY/L GRAHAM	A6
LF89883	Lead	0.000	03KC040 - UNIT 1	M PRYSBY/L GRAHAM	A7
LF89884	Lead	0.000	03KC040 UNIT 1	M PRYSBY/L GRAHAM	A8
LF89885	Lead	0.000	03KC040 UNIT 1	M PRYSBY/L GRAHAM	A9
LF89886	Lead	0.000	03KC040 UNIT 1	M PRYSBY/L GRAHAM	A10
LF89887	Lead	0.002	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B1
LF89888	Lead	0.000	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B2
LF89889	Lead	0.000	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B3
LF89890	Lead	0.000	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B4
LF89891	Lead	0.000	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B5
LF89892	Lead	0.000	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B6
LF89893	Lead	0.001	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B7
LF89894	Lead	0.001	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B8
LF89895	Lead	0.000	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B9
LF89896	Lead	0.000	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B10
LF89897	Lead	0.003	01CF004 - RM 109	M PRYSBY/L GRAHAM	C1
LF89898	Lead	0.000	01CF004 - RM 109	M PRYSBY/L GRAHAM	C2
LF89899	Lead	0.000	01CF004 - RM 109	M PRYSBY/L GRAHAM	C3
LF89900	Lead	0.000	01CF004 RM 109	M PRYSBY/L GRAHAM	C4
LF89901	Lead	0.000	01CF004 RM 109	M PRYSBY/L GRAHAM	C5
LF89902	Lead	0.000	01CF004 RM 109	M PRYSBY/L GRAHAM	C6
LF89903	Lead	0.000	01CF004 RM 109	M PRYSBY/L GRAHAM	C7
LF89904	Lead	0.000	01CF004 RM 109	M PRYSBY/L GRAHAM	C8
LF89905	Lead	0.000	01CF004 RM 109	M PRYSBY/L GRAHAM	C9
LF89906	Lead	0.000	01CF004 R 109	M PRYSBY/L GRAHAM	C10
LF89907	Lead	0.002	01CF010 RM 102	M PRYSBY/L GRAHAM	D1
LF89908	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D2
LF89909	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D3
LF89910	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D4
LF89911	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D5
LF89912	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D6
LF89913	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D7
LF89914	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D8
LF89915	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D9

LF89916	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D10
LF89917	Lead	0.003	02CF036 RM 209	M PRYSBY/L GRAHAM	E1
LF89918	Lead	0.001	02CF036 - RM 209	M PRYSBY/L GRAHAM	E-2
LF89919	Lead	0.001	02CF036 - RM 209	M PRYSBY/L GRAHAM	E3
LF89920	Lead	0.001	02CF036 RM 209	M PRYSBY/L GRAHAM	E4
LF89921	Lead	0.000	02CF036 RM 209	M PRYSBY/L GRAHAM	E5
LF89922	Lead	0.000	02CF036 RM 209	M PRYSBY/L GRAHAM	E6
LF89923	Lead	0.000	02CF036 RM 209	M PRYSBY/L GRAHAM	E7
LF89924	Lead	0.000	02CF036 RM 209	M PRYSBY/L GRAHAM	E8
LF89925	Lead	0.000	02CF036 RM 209	M PRYSBY/L GRAHAM	E9
LF89926	Lead	0.000	02CF036 RM 209	M PRYSBY/L GRAHAM	E10

From:	Thelen, Mary Beth (DEQ)
Sent:	Monday, November 23, 2015 3:10 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS)
Subject:	2015-11-23 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	18-Point Partnering Plan 11-23-15.pdf; 2015-11-23 Flint Drinking Water Action Plan Update.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. 18-Point Partnering Plan
2. Flint Drinking Water Action Plan Update

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions.

Thank you.

Dan Wyant
Director

Department of Environmental Quality
18-Point Partnering Plan

1. **After Action Plan Frequently Asked Questions will be ready by noon on November 16, 2015**

   - First version complete – updated as needed

2. **School test data**

   - School reports to be expedited
   - Steve Busch creates summary reports
   - George Krisztian creates summary spreadsheets

3. **Blood exposure**

   - DHHS is lead on providing data

4. **Meeting with Mayor Karen Weaver**

   - Harvey Hollins lead – Dan Wyant, Jim Sygo, and George Krisztian to attend

5. **Messaging our Partnering Plan**

   - Provide ongoing public updates regarding Governor's 10-point plan
   - Continue emphasis on the availability of free testing for Flint residents
   - DEQ's Office of Environmental Assistance to direct the public to the Flint water Web site: www.mi.gov/flintwater

6. **Sampling Protocol**

   - Establish alignment with the U.S. Environmental Protection Agency (EPA), Region 5, on sampling protocol

7. **Lead service line replacement**

   - Expand the Revolving Loan Fund directed at lead service line replacement
   - Amy Epkey, Maggie Pallone, and Sonya Butler

8. Partner with EPA

- Dan Wyant → Susan Hedman
- Jim Sygo → Bob Kaplan
- Mike Prysby and Steve Busch → Darren Lytle and Mike Schock
- George Krisztian → Tom Burke
- DEQ's Office of Drinking Water and Municipal Assistance (ODWMA) staff → EPA, Region 5, staff (Jennifer Crooks and Tom Poy)

9. Meet with Charles Stewart Mott Foundation to discuss Lead Service Line Identification Study

10. Lead Education Program

- DHHS is the lead on Lead Education Program

11. Moving Karegnondi Water Authority (KWA) forward

- Proactive meetings with KWA

12. Participate actively with Flint Technical Advisory Council

13. Utilize Joan Rose and Michigan State University water expertise

14. Public outreach

- Flint Mayor Karen Weaver
- Genesee County Health Department
- Drs. Lawrence Reynolds, Eden Wells, and Matthew Davis
- Ministers
- Land Bank
- Legislators
- Citizens

15. Outreach to schools

- EPA guidance on testing
- Work with State Superintendent Brian Whiston
- ODWMA staff to work on literature

16. Make recommendations to EPA about Lead and Copper Rule

17. Compliance Communication letter sent on November 9, 2015

- Wait until after December 30, 2015

18. Enhance coordination with health officials regarding personal health notifications of drinking water issues

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

Key Actions:

- An 18-Point Partnering Plan was developed to guide DEQ staff on the Flint water issue. The document focuses on areas of concern and identifies key partnerships. The issues in the Partnering Plan address short-term, intermediate term, and long-terms goals. This document will be reviewed at least weekly, and actions by DEQ staff with respect to the Partnering Plan will be documented. The Partnering Plan has become a standing agenda item and a central focus for the internal action plan meetings.

- On November 20 the weekly meeting was held at Flint between DEQ staff and city of Flint officials. Mayor Karen Weaver was present at the meeting. This was Mayor Weaver's first time in attendance at the weekly meeting. After introductions were made, Mayor Weaver was given an overview of the data from the free homeowner's testing. Mayor Weaver was informed that the samples were from any Flint resident who wished to have their water tested and, as such, were not necessarily representative of the site selection criteria as specified in the lead and copper rule, but with that said, the results were encouraging. Mayor Weaver was informed that over 3/4 of the samples had results of 5 parts per billion (ppb) or less and that approximately 92 percent of the sample results were at 15 ppb or less. It was also stressed to Mayor Weaver that, although the results were encouraging, there were also pockets of concern where the lead levels in the drinking water were significantly above 15 ppb.

  There was also discussion about making sure that water sample results were kept in context. In order for an individual to be sure with respect to their exposure to lead, they should have their blood tested. Individuals with an elevated blood level (EBL) would then be encouraged to have an EBL investigation done to evaluate all potential exposure pathways. There was then discussion as to what the EBL investigation entailed and how the water testing was being incorporated into the EBL.

  The meeting ended with an invitation by the DEQ to Mayor Weaver to come tour the DEQ's Laboratory to see first-hand how samples were analyzed. Mayor Weaver indicated that she would be very interested in a tour and that a date would be set up.

Positions:

- There are no new positions to report since last week.

Concerns:

- There are no new concerns to report since last week.

Significant Events:

- A Frequently Asked Questions document was provided to the Governor's Flint Water Task Force (Task Force) on November 16. DEQ staff subsequently met with the Task Force on November 18.

Changes from Previous Report:

- DEQ staff provided comments on the final draft of the DHHS protocol for EBL investigations. The sampling protocol will utilize 14 drinking water samples that will be used to identify potential sources of exposure to lead located in the plumbing system of residential dwellings.

- DEQ staff provided comment on the draft sampling protocol that the city of Flint is proposing to use for compliance monitoring for the lead and copper rule. This document has been forwarded to staff at the U.S. Environmental Protection Agency (EPA) for additional comment.

- On November 19 DEQ staff contacted EPA staff via e-mail regarding a request by the city of Flint for guidance on a corrosion control treatment evaluation for Karegnondi Water Authority source water use at the Flint Water Treatment Plant. A meeting has been scheduled for December 11 to discuss the issue with all parties.

- DEQ and DLARA staff conducted a plumbing assessment of Neithercut Elementary School in Flint on November 20.

- DEQ and DLARA staff conducted school sampling at Neithercut Elementary School in Flint on Saturday, November 21.

- A draft report for Eisenhower Elementary School was completed and is awaiting final publishing and will then be posted to the Flint water Web site: www.mi.gov/flintwater.

- Draft reports for Brownell K-2 STEM Academy and Pierce Elementary Schools are in progress and near completion.

- DEQ staff has been in meetings with the Office of the Auditor General audit team and have provided information and documentation as requested.

Other Item:

- Attached is the 18-point Partnering Plan that will guide the efforts of the DEQ regarding the Flint water issue.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]

November 23, 2015

From: Wyant, Dan (DEQ)
Sent: Monday, November 30, 2015 3:06 PM
To: Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV); Baird, Richard (GOV)
Cc: Wyant, Dan (DEQ); Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS)
Subject: 2015-11-30 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: 2015-11-30 Flint Drinking Water Action Plan Update.pdf; 11-23-2015 Flint Drinking Water Events Timeline.pdf; EisenhowerElementary_Report.pdf; 18-Point Partnering Plan 11-23-15.pdf

Importance: High

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

- Flint Drinking Water Action Plan Update
- Revised Flint Drinking Water Events Timeline
- Eisenhower Elementary School report
- 18-Point Partnering Plan dated November 23, 2015 (we sent this last week but sending again as a reminder)

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions. I have also added Richard Baird to this weekly email.

Thank you.

Dan Wyant
Director

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

Key Actions:

Due to the Thanksgiving holiday, this week's report is abbreviated.

Positions:

There are no new positions to report since last week.

Concerns:

There are no new concerns to report since last week.

Significant Events:

There are no significant events to report since last week.

Changes from Previous Report:

- The Flint Drinking Water Events Timeline has been revised. The header and footer were updated, and acronyms were generally removed. Permit numbers have been deleted, and dates were filled in to the extent possible. The most significant change is the December 31, 2014, item regarding end of the 1st monitoring period. This was rewritten to be consistent with the June 30, 2015, end of the 2nd monitoring period item. The compliance letter reporting the results was added on March 30, 2015.

- School sampling was suspended due to the holiday and is scheduled to continue on Saturday, December 5, 2015.

- The report for Eisenhower Elementary School was completed, has gone through final publishing, and will be posted to the Flint water Web site: www.mi.gov/flintwater.

- There are now a total of four schools in Flint that are not part of the Flint Community Schools that have requested plumbing assessments and sampling of their facilities. These facilities will be evaluated once the Flint school system evaluation has been completed. The four facilities include: Eagle's Nest Academy, Powers Catholic High School, International Academy of Flint, and St. Paul Lutheran School. It is anticipated that these facilities will be evaluated beginning sometime in January 2016.

- The internal after action group met on November 24, 2015, to discuss the newly-created 18-Point Partnering Plan. Each point was reviewed, and members were instructed to use the document as a plan moving forward. The Partnering Plan is meant to be a living document and will be revised as needed.

Other Items:

- Attached is the revised Flint Drinking Water Events Timeline.
- Attached is the Eisenhower Elementary School report.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
November 30, 2015

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
FLINT DRINKING WATER EVENTS TIMELINE

Date	Event	Attachment
Pre-1967	Flint Water Treatment Plant in operation using Flint River for drinking water	1
Post-1967	Flint switched to Detroit Water and Sewerage Department for drinking water	None
January 2006	Discussions regarding Karegnondi Water Authority, *Preliminary Long-Term Water Supply for Genesee County*	2
June 25, 2009 September 2009	*Lake Huron Water Supply Study* *Karegnondi Water Authority* Executive Summary and Preliminary Engineering Report	3
March 2013	*Analysis of the Flint River as a Permanent Water Supply for the City of Flint*; Prepared for: City of Flint dated July 2011	4
April 2013	Flint notifies Detroit Water and Sewerage Department of contract discontinuation and joins the Karegnondi Water Authority	5
April 2013	Detroit Water and Sewerage Department sets termination of Flint water service contract to April 17, 2014	6
June 2013	Flint notifies the Department of Environmental Quality of intent to operate Flint Water Treatment Plant full time using Flint River for drinking water	7
April 2014	The Michigan Department of Environmental Quality issues Flint Water Treatment Plant construction permits for full time operation enhancements W141025 and W141026	9
May 2014	Flint stops purchasing Detroit Water and Sewerage Department water. Starts using the City of Flint Water Treatment Plant and Flint River for drinking water	10
August 2014	Flint *E. coli* bacteria violation, Localized System Boil Water Advisory	11
September 2014	Disinfection Byproducts compliance communication; the Michigan Department of Environmental Quality requests preemptive Operational Evaluation	12
September 2014	Flint Total Coliform Bacteria violation, Localized System Boil Water Advisory	13

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
FLINT DRINKING WATER EVENTS TIMELINE

Date	Event	Attachment
October 2014	General Motors announces decision to stop using Flint River as source for production water	14
December 2014	Disinfection Byproducts quarterly violation begins	15
December 31, 2015	1st 6-month round of lead and copper monitoring ends. Results due from Flint to Michigan Department of Environmental Quality on January 10, 2015	None
January 21, 2015	City of Flint Public Meeting regarding disinfection byproducts and bacteria	17
February 26, 2015	E-mail from United States Environmental Protection Agency to Michigan Department of Environmental Quality regarding elevated lead sample	18
February 27, 2015	E-mail from United States Environmental Protection Agency to Michigan Department of Environmental Quality inquiring about Optimized Corrosion Control Treatment	19
February 27, 2015	Michigan Department of Environmental Quality response to United States Environmental Protection Agency email with statement regarding optimized corrosion control program	20
March 5, 2015	2nd Disinfection Byproducts quarterly violation notice	21
March 30, 2015	Michigan Department of Environmental Quality notifies Flint of Lead/Copper Monitoring Results.	16
April 3, 2015	Long Term 2 Enhanced Surface Water Treatment Rule Letter	22
April 6, 2015	Flint proposes installation of Granular Activated Carbon Filter media to reduce disinfection byproducts	23
April 23, 2015	United States Environmental Protection Agency e-mail to Michigan Department of Environmental Quality regarding corrosion control treatment	24
April 24, 2015 May 1, 2015	Michigan Department of Environmental Quality responds to United States Environmental Protection Agency regarding corrosion control treatment	25

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
FLINT DRINKING WATER EVENTS TIMELINE

Date	Event	Attachment
April 27, 2015	United States Environmental Protection Agency provided bottles to 212 Browning for lead/copper analyses	26
May 6, 2015	Lead service line replaced at 212 Browning. United States Environmental Protection Agency on-site	27
May 28, 2015	Internal United States Environmental Protection Agency e-mail regarding results at 212 Browning	29
June 9, 2015	3rd Disinfection Byproducts quarterly violation notice	30
June 10, 2015	Semi-Annual Conference call with United States Environmental Protection Agency	31
June 30, 2015	E-mail from United States Environmental Protection Agency scheduling conference call on July 21, 2015 regarding elevated lead result and concerns regarding corrosion control	32
June 30, 2015	2nd 6-month round of lead and copper monitoring ends. Results due from Flint to Michigan Department of Environmental Quality on July 10, 2015	None
July 9, 2015	Michigan Department of Environmental Quality informed that United States Environmental Protection Agency draft internal memo is on ACLU website	33
July 14, 2015	Michigan Department of Environmental Quality issues construction permit to Flint for Granular Activated Carbon filter media W151055	34
July 21, 2015	Conference call with United States Environmental Protection Agency (Lead and Copper Rule implementation and Flint) during which it informs Michigan Department of Environmental Quality its interpretation of Lead and Copper Rule	35
July 24, 2015	Michigan Department of Environmental Quality e-mail and draft letter 90th percentile lead determination = 11 parts per billion and City of Flint requirement to add corrosion control treatment	36

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
FLINT DRINKING WATER EVENTS TIMELINE

Date	Event	Attachment
July 28, 2015	Michigan Department of Environmental Quality received blood lead level information from Michigan Department of Health and Human Services indicating that results since the switch to the Flint River are consistent with past years seasonal variations	37
August 4, 2015	Meeting with city representatives at Governor's office	38
August 17, 2015	Michigan Department of Environmental Quality notifies Flint of lead/copper monitoring results and requires City to install corrosion control treatment	39
August 23, 2015	Michigan Department of Environmental Quality notified by an external party that a water quality study was about to begin in Flint	40
September 2, 2015	Disinfection Byproducts return to compliance	43
September 11, 2015	United States Environmental Protection Agency e-mail confirming that Michigan Department of Environmental Quality was never sent the draft June 24, 2015 memo	44
September 21, 2015	Meeting with Congressional representatives, legislators, United States Environmental Protection Agency and Michigan Department of Environmental Quality to discuss issues with water quality in Flint	45
September 22, 2015	Meeting/Conference call with Michigan Department of Health and Human Services, Genesee County Health Department, and Michigan Department of Environmental Quality to discuss lead education/outreach	46
September 24, 2015	Hurley Children's Hospital data reveals elevated blood lead levels in Flint children	47
September 24, 2015	Michigan Department of Health and Human Services response affirms State blood lead level data is more comprehensive than Hurley Hospital data	None

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
FLINT DRINKING WATER EVENTS TIMELINE

Date	Event	Attachment
September 25, 2015	Flint issues Lead Advisory regarding drinking water	48
October 1, 2015	State Chief Medical Officer confirms Hurley blood lead level data	None
October 1, 2015	Genesee County Health Department issues "Do Not Drink" Advisory	49
October 2, 2015	Michigan Department of Environmental Quality and Michigan Department of Health and Human Services press conference. Governor's Flint Action Plan announced.	50
October 2, 2015	Genesee County Health Department school screening water samples collected for lead analysis	51
October 8, 2015	Governor Press Conference: Flint to reconnect to Great Lakes Water Authority/Detroit Water and Sewerage Department	52
October 15, 2015	State Legislature authorizes a $9 million to assist the City of Flint to pay for the return to the Detroit water system and to fund staff at schools to gauge lead exposure	None
October 16, 2015	First weekly coordination meeting held between the City of Flint and state agencies	None
October 16, 2015	Michigan Department of Environmental Quality meets with Flint Schools Superintendent and Genesee County Health Department	None
October 16, 2015	Flint switches back to Detroit Water and Sewerage Department for water	53
October 21, 2015	Governor Snyder announces formation of Flint Water Task Force to complete an After-Action Review	None
October 28, 2015	Michigan Department of Environmental Quality issues construction permit for additional corrosion control treatment W151104	54
October 30, 2015	Michigan Department of Environmental Quality letter to Flint regarding corrosion control treatment operation	55

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
FLINT DRINKING WATER EVENTS TIMELINE

Date	Event	Attachment
November 3, 2015	United States Environmental Protection Agency Memorandum regarding "Lead and Copper Rule Requirements for Optimal Corrosion Control Treatment for Large Drinking Water Systems"	56
November 4, 2015	United States Environmental Protection Agency Memorandum regarding "Transmittal of Final Report – High Lead at Three Residences in Flint, Michigan"	57
Mid-Late 2016	Planned connection to Karegnondi Water Authority (Lake Huron water to Flint Water Treatment Plant)	None

EISENHOWER ELEMENTARY SCHOOL

Outlet Sampling and Plumbing Assessment Recommendations

1235 Pershing Street, Flint, Michigan 48503

BACKGROUND INFORMATION

On Friday, October 30, 2015, the Department of Licensing and Regulatory Affairs (DLARA) and the Department of Environmental Quality (DEQ) conducted an assessment of Eisenhower Elementary School's plumbing system to gain a comprehensive understanding of how water moves through the building and what types of plumbing materials are used. Two outlet buildings in addition to the main school building were included in the assessment. The assessment identified the following potential sources of lead leaching into drinking water:

- Lead solder joints on copper piping
- Brass valves and brass fittings
- Brass components in fixtures
- Galvanized piping

The assessment also identified 43 faucets or fountains that provide water for drinking, cooking, and/or food preparation, 37 faucets/fountains in the main school building, four faucets/fountains in out building unit 1, and two faucets/fountains in out building unit 2. The team developed a sequence for sampling the faucets/fountains in each building based on how the water travels through each building.

On Saturday, October 31, 2015, the DEQ and the DLARA completed sampling of the 37 faucets/fountains in the main school building, the four faucets/fountains in out building unit 1, and the two faucets/fountains in out building unit 2, each in the order determined by the plumbing assessment from the previous day, following a stagnation period of over 12 hours. At each of the 43 faucets/fountains identified, staff collected four samples. Two initial, 125-milliliter samples (P1 and P2), were collected immediately after turning on the tap. The water was then flushed for 30 seconds and a third, 125-milliliter sample (F01) was collected. Finally, the water was flushed for another two minutes, and the fourth 125-milliliter sample (F02) was collected. These samples were used to determine the impact of any lead sources in and around each specific faucet/fountain and its connecting plumbing.

The DEQ and the DLARA then completed consecutive sampling at three of the 37 faucets/fountains in the main school building, one of the four faucets/fountains in out building unit 1, and one of the two faucets/fountains in out building unit 2, five sites in total. This consecutive sampling was used to determine the impact of any lead sources located deep in the supply plumbing at each of these buildings. The three sites in the main school building included one site near the building service line, one site near the plumbing mid-point, and one site at the far end of the plumbing system. At each of these five sites, staff collected 10, 1-liter samples. The 10 samples were collected immediately after turning on the tap, and consecutively, without any flushing time in between.

WATER SERVICE INFORMATION

A four-inch diameter cast iron water service line enters the main school building in the boiler room northwest wall located in the west corner of the building. Piping in the boiler room immediately transitions into galvanized metal piping for cold water lines. Three separate galvanized cold water supply lines exit the boiler room. One in the north corner serves a single hose bib directly outside the boiler room. A second line exits the southeast wall and serves the adjacent janitors closet and dressing room bathrooms. The third line exits the boiler room on the northeast side through a utility tunnel that runs below the school hallways and serves all rooms in the main school building. This supply line then runs between the first and second floors on the southeast end of

the building. Copper piping with lead solder joints branches off of the galvanized supply line for cold water supply to each room. Hot water is distributed in continuous loops that feed from and return to a central water heater in the boiler room. Hot water piping material, where exposed, was copper piping with lead solder joints. Brass valves were seen throughout the building.

Out building unit 1 has a separate customer service line from the City water main constructed using copper piping material. The service line comes out of the ground beneath the building and within the building is copper pipe with lead free solder joints.

Out building unit 2 has a separate customer service line from the City water main constructed using copper piping material. The service line comes out of the ground beneath the building and within the building is copper pipe with lead free solder joints.

Outlets With Lead Levels Greater Than 15 Parts per Billion

The DEQ recommends school facilities take action if samples from any drinking water outlets show lead levels greater than 15 parts per billion. Based on the sampling conducted at 43 faucets/fountains on October 31, 2015, the following 18 drinking water outlets had lead water level results greater than 15 parts per billion. Each of these 18 outlets is listed below with its sample results, including a description of the potential source(s) of lead, and recommended actions for the school to take.

Outlet: Bubbler Drinking Fountain (01DW001)

Location: West corner, Gymnasium Multipurpose Room
Results: P1=32 parts per billion, P2=6 parts per billion
F01=5 parts per billion, F02=3 parts per billion

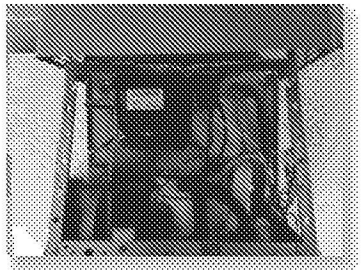
These results suggest the highest contribution of lead may be from the bubbler itself. This bubbler fixture is made of chrome plated brass and is believed to have a brass valve. The connection piping with the unit may also contain some brass components.

Replacement of this bubbler tap and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Water Cooler Fountain (01WC002)

Location: Hallway between Gym and Auditorium, northeast side
Results: P1=17 parts per billion, P2=17 parts per billion
F01=12 parts per billion, F02=3 parts per billion

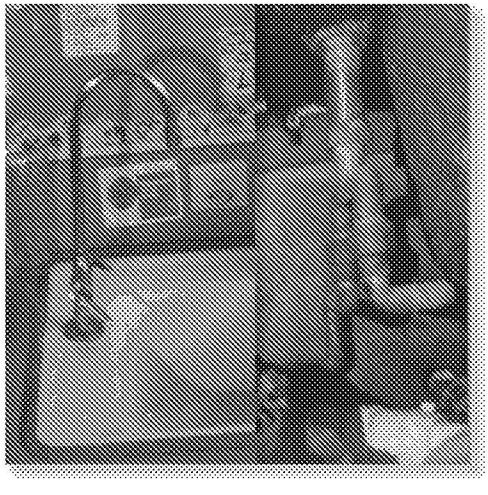
These results suggest the highest contribution of lead may be from the water cooler unit. The water cooler is an Elkay model LKEZFS8. This model contains some brass components. Connecting plumbing to the cooler unit may also contain brass components.



Replacement of the entire unit is recommended and will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Sink Faucet (01CF004)

Location: Classroom 109, northwest wall
Results: P1=17 parts per billion, P2=10 parts per billion
F01=1 part per billion, F02=2 parts per billion

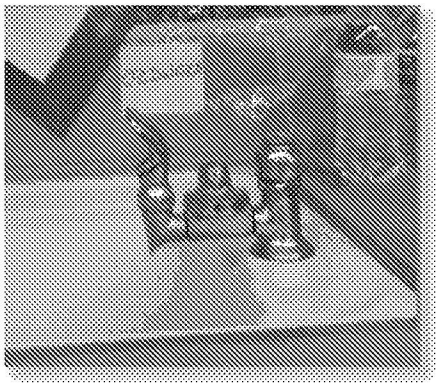


These results suggest the highest contribution of lead may be from the faucet and its connecting plumbing. The base of this faucet is chrome plated brass, and has a brass connection on the underside of the sink. Hot and cold water lines connect to this faucet with a brass mixer fitting under the sink. Connecting plumbing in the cabinet under the sink may also contain additional brass components.

Replacement of this faucet and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

This faucet also has an aerator/screen at the outlet. If the faucet is not replaced, the aerator/screen should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator/screen should be periodically checked and cleaned.

Outlet: Bubbler Fountain (02DW020)

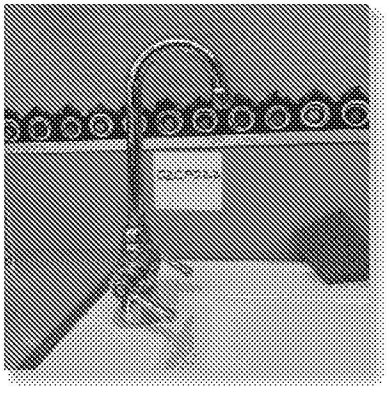


Location: Classroom 201, southeast wall
Results: P1=37 parts per billion, P2=24 parts per billion
F01=2 parts per billion, F02=non-detect

These results suggest the highest contribution of lead may be from the bubbler and its connecting plumbing. This bubbler fixture is made of chrome plated brass and has a brass connector on the underside of the sink. The bubbler also has a chrome plated brass flow regulator installed between the operating valve and the outlet. The connecting plumbing is copper with lead solder and includes a brass shut off valve.

Replacement of this bubbler tap and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Sink Faucet (02CF022)



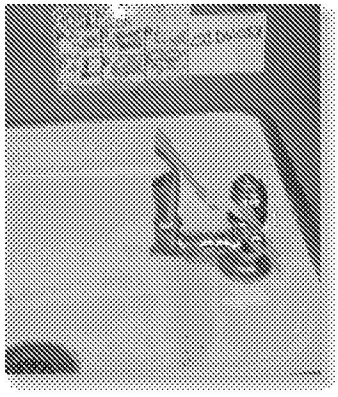
Location: Classroom 202, northwest wall
Results: P1=7 parts per billion, P2=24 parts per billion
F01=2 parts per billion, F02=1 part per billion

These results suggest the highest contribution of lead may be from the faucet and its connecting plumbing. The base of this faucet is chrome plated brass, and has a brass connection on the underside of the sink. Connecting plumbing in the cabinet under the sink is made up of brass connectors; copper piping with lead solder and brass shut off valves.

Replacement of this faucet and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

This faucet also has an aerator/screen at the outlet. If the faucet is not replaced, the aerator/screen should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator/screen should be periodically checked and cleaned.

Outlet: Bubbler Fountain (01DW013)

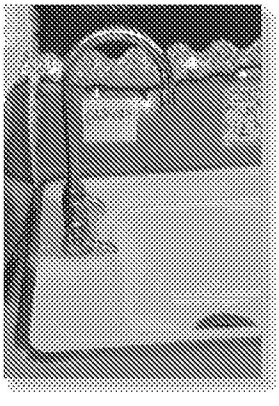


Location: Classroom 104, southwest wall
Results: P1=43 parts per billion, P2=106 parts per billion
F01=3 parts per billion, F02=2 parts per billion

These results suggest the highest contribution of lead may be from the bubbler and its connecting plumbing. This bubbler fixture is made of chrome plated brass and has a brass connector on the underside of the sink. Connecting plumbing in the cabinet under the sink is made up of brass connectors; copper piping with lead solder, and a brass shut off valve.

Replacement of this bubbler tap and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Sink Faucet (01CF014)



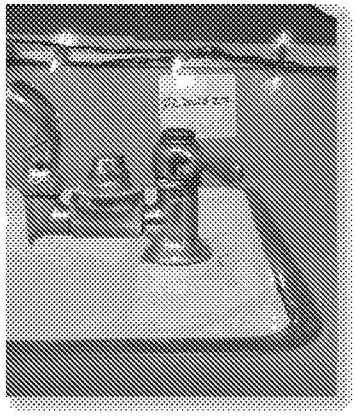
Location: Classroom 104, southwest wall
Results: P1=36 parts per billion, P2=36 parts per billion
F01=2 parts per billion, F02=1 part per billion

These results suggest the highest contribution of lead may be from the faucet and its connecting plumbing. The base of this faucet is chrome plated brass, and has a brass connection on the underside of the sink. Connecting plumbing in the cabinet under the sink is made up of brass connectors; copper piping with lead solder and brass shut off valves.

Replacement of this faucet and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

This faucet also has an aerator/screen at the outlet. If the faucet is not replaced, the aerator/screen should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator/screen should be periodically checked and cleaned.

Outlet: Bubbler Fountain (02DW027)



Location: Classroom 204, southwest wall
Results: P1=18 parts per billion, P2=8 parts per billion
F01=2 parts per billion, F02=1 part per billion

These results suggest the highest contribution of lead may be from the bubbler and its connecting plumbing. This bubbler fixture is made of chrome plated brass and has a brass connector on the underside of the sink. The bubbler also has a chrome plated brass flow regulator installed between the operating valve and the outlet. The connecting plumbing is copper with lead solder and includes a brass shut off valve.

Replacement of this bubbler tap and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

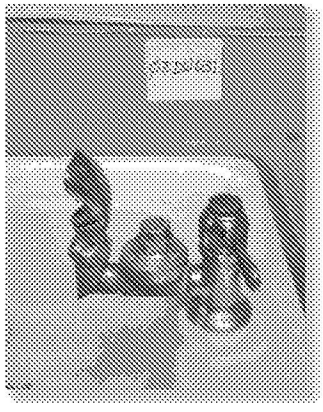
Outlet: Bubbler Fountain (02DW029)

Location: Classroom 205, northeast wall
Results: P1=39 parts per billion, P2=14 parts per billion
F01=11 parts per billion, F02=1 part per billion

These results suggest the highest contribution of lead may be from the bubbler and its connecting plumbing. This bubbler fixture is made of chrome plated brass and has a brass connector on the underside of the sink. Connecting plumbing in the cabinet under the sink is made up of brass connectors and copper piping with lead solder.

Replacement of this bubbler tap and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Bubbler Fountain (02DW031)

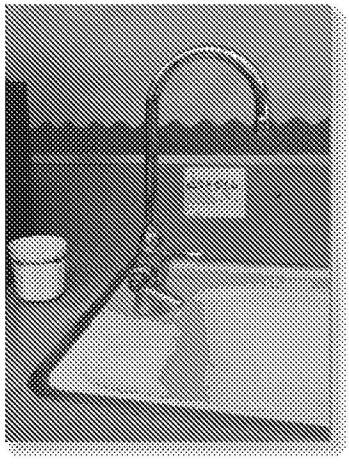


Location: Classroom 206, southwest wall
Results: P1=84 parts per billion, P2=7 parts per billion
F01=1 part per billion, F02=non-detect

These results suggest the highest contribution of lead may be from the bubbler and its connecting plumbing. This bubbler fixture is made of chrome plated brass and has a brass connector on the underside of the sink. The bubbler also has a chrome plated brass flow regulator installed between the operating valve and the outlet. Connecting plumbing in the cabinet under the sink should be checked for brass components and copper piping with lead solder.

Replacement of this bubbler tap and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Sink Faucet (01CF016)



Location: Classroom 106, northeast wall
Results: P1=402 parts per billion, P2=61 parts per billion
F01=4 parts per billion, F02=1 part per billion

These results suggest the highest contribution of lead may be from the faucet and its connecting plumbing. The base of this faucet is chrome plated brass, and has a brass connection on the underside of the sink. Connecting plumbing in the cabinet under the sink is partly made up of brass connectors; copper piping with lead solder, and brass shut off valves.

Replacement of this faucet and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

This faucet also has an aerator/screen at the outlet. If the faucet is not replaced, the aerator/screen should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator/screen should be periodically checked and cleaned.

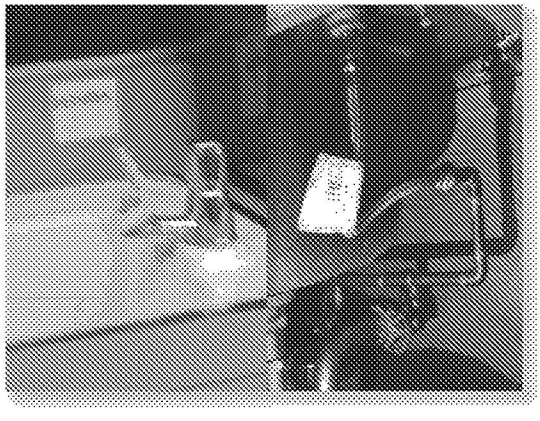
Outlet: Sink Faucet (02CF032)

Location: Classroom 207, northeast wall
Results: P1=21 parts per billion, P2=23 parts per billion
F01=5 parts per billion, F02=1 part per billion

These results suggest the highest contribution of lead may be from the faucet and its connecting plumbing. The base of this faucet is chrome plated brass, and has a brass connection on the underside of the sink. Connecting plumbing in the cabinet under the sink is partly made up of brass connectors; copper piping with lead solder, and brass shut off valves.

Replacement of this faucet and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Bubbler Fountain (02DW033)

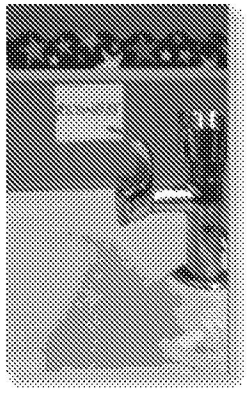


Location: Classroom 207, northeast wall
Results: P1=20 parts per billion, P2=4 parts per billion
F01=3 parts per billion, F02=3 parts per billion

These results suggest the highest contribution of lead may be from the bubbler and its connecting plumbing. Parts of this bubbler fixture are made of brass and it has a brass connector on the underside of the sink. Connecting plumbing in the cabinet under the sink is partly made up of brass connectors; copper piping with lead solder, and a brass shut off valve.

Replacement of this bubbler tap and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Bubbler Fountain (02DW035)



Location: Classroom 208, southwest wall
Results: P1=12 parts per billion, P2=19 parts per billion
F01=6 parts per billion, F02=3 parts per billion

These results suggest the highest contribution of lead may be from the bubbler and its connecting plumbing. This bubbler fixture is made of chrome plated brass and has a brass connector on the underside of the sink. Connecting plumbing in the cabinet under the sink should be checked for brass components and copper piping with lead solder.

Replacement of this bubbler tap and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Sink Faucet (02CF034)

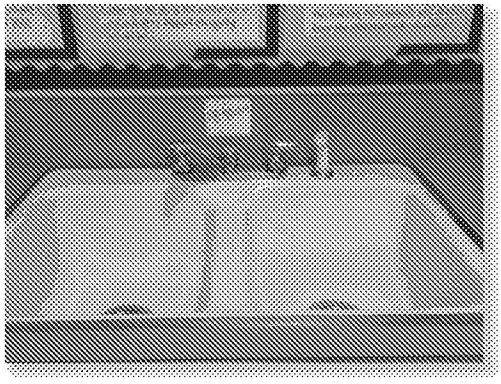
NO IMAGE AVAILABLE

Location: Classroom 208, southwest wall
Results: P1=19 parts per billion, P2=12 parts per billion
F01=3 parts per billion, F02=2 parts per billion

These results suggest the highest contribution of lead may be from the faucet and its connecting plumbing. The base of this faucet is chrome plated brass, and has a brass connection on the underside of the sink. Connecting plumbing in the cabinet under the sink should be checked for brass components and copper piping with lead solder.

Replacement of this faucet and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Kitchen Faucet (01KC019)



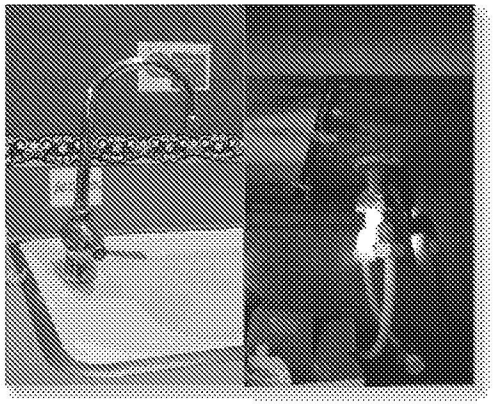
Location: Room 108, southwest wall
Results: P1=17 parts per billion, P2=5 parts per billion
F01=4 parts per billion, F02=1 part per billion

These results suggest the highest contribution of lead may be from the faucet and its connecting plumbing. This fixture appears to be a Delta two handled faucet. This model faucet typically has a brass tube in its deck body and may contain some additional brass components. Connecting plumbing in the cabinet under the sink should be checked for brass components and copper piping with lead solder.

Replacement of this faucet and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

This faucet also has an aerator/screen at the outlet. If the faucet is not replaced, the aerator/screen should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator/screen should be periodically checked and cleaned.

Outlet: Sink Faucet (02CF036)



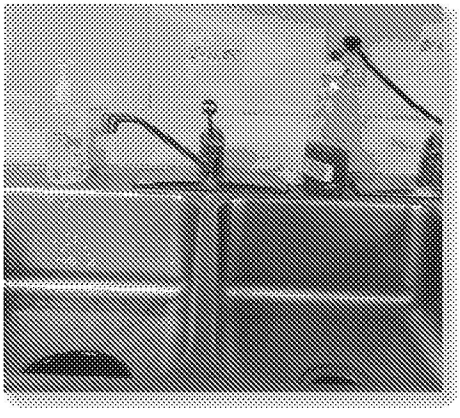
Location: Classroom 209, southwest wall
Results: P1=7 parts per billion, P2=21 parts per billion
F01=5 parts per billion, F02=1 part per billion

These results suggest the highest contribution of lead may be from the faucet and its connecting plumbing. The base of this faucet is chrome plated brass, and has a brass connection on the underside of the sink. Hot and cold water lines connect to this faucet with a brass mixer fitting under the sink. Connecting plumbing in the cabinet under the sink may also contain additional brass connectors and copper plumbing with lead solder.

Replacement of this faucet and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

This faucet also has an aerator/screen at the outlet. If the faucet is not replaced, the aerator/screen should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator/screen should be periodically checked and cleaned.

Outlet: Kitchen Faucet, Left (04KC043)



Location: Outbuilding Unit 2 DHHS Office
Results: P1=17 parts per billion, P2=3 parts per billion
F01=2 parts per billion, F02=3 parts per billion

These results suggest the highest contribution of lead may be from the faucet and its connecting plumbing. The faucet is a Delta 400. This model faucet valve has brass components. This style faucet also has a mixing valve that may allow mixing of hot and cold water. Connecting plumbing in the cabinet under the sink may also contain brass components.

Replacement of this faucet and its connection plumbing with lead free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

This faucet also has an aerator/screen at the outlet. If the faucet is not replaced, the aerator/screen should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator/screen should be periodically checked and cleaned.

Outlets With Lead Levels 15 Parts per Billion or Less

While the remaining 25 outlets showed sample results to be at levels requiring no further action, several recommendations have been identified.

The fourth sample (F02) at all 43 outlets following approximately 3 minutes of use and flushing at a reduced flow resulted in reduced lead concentrations of 3 parts per billion or less. This indicates that flushing of all taps used for drinking, cooking, and/or food preparation for 4 minutes following periods of stagnation will further reduce lead exposure. It is recommended that a flushing operational procedure be developed for use by staff responsible for plumbing operations and maintenance with emphasis on flushing after weekends and holidays.

Seventeen of these twenty five outlets are comprised of similar materials as the outlets listed above and could potentially experience higher lead levels under extended periods of stagnation. These faucets/fountains include:

- Sink Side Bubbler Units in Classroom 109 (01DW003), Classroom 101 (01DW007), Classroom 102 (01DW009), Classroom 202 (02DW023), Classroom 103 (01DW011), Classroom 203 (02DW025), Classroom 106 (01DW015), Classroom 107 (01DW017), and Classroom 209 (02DW037)
- Chrome Plated Brass Base Faucets in Classroom 101 (01CF008), Classroom 201 (02CF021), Classroom 103 (01CF012), Classroom 203 (02CF024), Classroom 204 (02CF026), Classroom 205 (02CF028), and Classroom 107 (01CF018)
- Delta 400 Model Faucet in Out Building Unit 2 (04KC044)

Replacement of these fixtures with lead free materials is also recommended.

The remaining eight outlets showed sample results of 15 parts per billion or less, requiring no further action or additional recommendations. These faucets/fountains include:

- Sink Faucets in Classroom 102 (01CF010) and the Clinic (01CF006)
- Kitchen Faucets in the Community Room Kitchen (01KC005), Classroom 206 (02CF030), Out Building Unit 1 (03KC040 and 03KC041)
- Water Coolers in Out Building Unit 1 (03DW038 and 03DW039)

Consecutive Sampling Results and Building Plumbing Recommendations

The consecutive samples taken on October 31, 2015, at three sites in the main school building and one site from each of the two out building units all provide additional confirmation that the highest contribution of lead appears to be from the individual faucet/fountains and not from the larger diameter supply plumbing within the main school building or the two out building units. Results of the consecutive sample monitoring are listed in the table below.

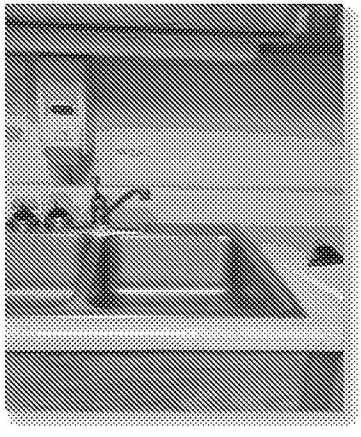
Consecutive Sample No.	1	2	3	4	5	6	7	8	9	10
LOCATION	LEAD RESULT (PARTS PER BILLION; ND = NOT-DETECTED)									
Classroom 109 Sink Faucet (01CF004)	3	ND	ND	ND	ND	ND	ND	ND	ND	ND
Classroom 102 Sink Faucet (01CF010)	2	ND	ND	ND	ND	ND	ND	ND	ND	ND
Classroom 209 Sink Faucet (02CF036)	3	1	1	1	ND	ND	ND	ND	ND	ND
Out Building Unit 1 Kitchen Faucet (03KC040)	1	ND	ND	ND	ND	ND	ND	ND	ND	ND
Out Building Unit 2 Kitchen Faucet (04KC044)	2	ND	ND	ND	ND	ND	1	1	ND	ND

Outlets With Copper Levels Greater Than 1.3 Parts per Million

The DEQ recommends school facilities take action if samples from any drinking water outlets show copper levels greater than 1.3 parts per million. Based on the sampling conducted at 43 faucets/fountains on October 31, 2015, the following two drinking water outlets both located in Outbuilding Unit 1, had copper water level results greater than 1.3 parts per million. These two outlets are listed below with their sample results. While the remaining two outlets in Outbuilding Unit 1 had satisfactory copper results, copper results from all four outlets in Outbuilding Unit 1, along with the consecutive sample results for Outbuilding Unit 1, suggests that copper leaching is occurring in the building plumbing and copper service line due to excessive stagnation and lack of use. Additional work with the school will be performed by the DEQ to address this issue.

Outlet: Kitchen Faucet, Left (03KC041)

Location: Outbuilding Unit 1, Proposed Preschool
Results: P1=0.33 parts per million, P2=1.84 parts per million
F01=1.07 parts per million, F02=1.12 parts per million



Outlet: Water Cooler, Left (03DW038)

Location: Outbuilding Unit 1, Proposed Preschool
Results: P1=2.77 parts per million, P2=1.37 parts per million
F01=1.2 parts per million, F02=1.03 parts per million

Department of Environmental Quality
18-Point Partnering Plan

1. **After Action Plan Frequently Asked Questions will be ready by noon on November 16, 2015**

   - First version complete – updated as needed

2. **School test data**

   - School reports to be expedited
   - Steve Busch creates summary reports
   - George Krisztian creates summary spreadsheets

3. **Blood exposure**

   - DHHS is lead on providing data

4. **Meeting with Mayor Karen Weaver**

   - Harvey Hollins lead – Dan Wyant, Jim Sygo, and George Krisztian to attend

5. **Messaging our Partnering Plan**

   - Provide ongoing public updates regarding Governor's 10-point plan
   - Continue emphasis on the availability of free testing for Flint residents
   - DEQ's Office of Environmental Assistance to direct the public to the Flint water Web site: www.mi.gov/flintwater

6. **Sampling Protocol**

   - Establish alignment with the U.S. Environmental Protection Agency (EPA), Region 5, on sampling protocol

7. **Lead service line replacement**

   - Expand the Revolving Loan Fund directed at lead service line replacement
   - Amy Epkey, Maggie Pallone, and Sonya Butler

8. Partner with EPA

- Dan Wyant → Susan Hedman
- Jim Sygo → Bob Kaplan
- Mike Prysby and Steve Busch → Darren Lytle and Mike Schock
- George Krisztian → Tom Burke
- DEQ's Office of Drinking Water and Municipal Assistance (ODWMA) staff → EPA, Region 5, staff (Jennifer Crooks and Tom Poy)

9. Meet with Charles Stewart Mott Foundation to discuss Lead Service Line Identification Study

10. Lead Education Program

- DHHS is the lead on Lead Education Program

11. Moving Karegnondi Water Authority (KWA) forward

- Proactive meetings with KWA

12. Participate actively with Flint Technical Advisory Council

13. Utilize Joan Rose and Michigan State University water expertise

14. Public outreach

- Flint Mayor Karen Weaver
- Genesee County Health Department
- Drs. Lawrence Reynolds, Eden Wells, and Matthew Davis
- Ministers
- Land Bank
- Legislators
- Citizens

15. Outreach to schools

- EPA guidance on testing
- Work with State Superintendent Brian Whiston
- ODWMA staff to work on literature

16. Make recommendations to EPA about Lead and Copper Rule

17. Compliance Communication letter sent on November 9, 2015

- Wait until after December 30, 2015

18. Enhance coordination with health officials regarding personal health notifications of drinking water issues

From:	Wyant, Dan (DEQ)
Sent:	Monday, December 07, 2015 3:34 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV); Baird, Richard (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS)
Subject:	2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-12-07 Flint Drinking Water Action Plan Update.pdf; What is a Part Per Billion.pdf
Importance:	High

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

- Flint Drinking Water Action Plan Update
- Document on What is a Part Per Billion.

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions. I have also added Richard Baird to this weekly email.

Thank you.

Dan Wyant
Director

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

Key Actions:

On December 3, 2015, DHHS released blood lead level testing data. The data covered the time frame between January 1, 2010, and November 13, 2015. The data was broken down by population set and by demographic. The population sets included the state of Michigan as a whole, Genesee County as a whole, and the city of Flint ZIP Codes 48501 to 48507. The demographic sets broke the populations down into the age groups of: "Children younger than 6 Years Old," "Children 6 to 17 Years Old," "Adults 18 Years and Older," and "Total Number of People of All Ages Tested."

On December 3, 2015, the DEQ released the lead in drinking water data and final report for Eisenhower Elementary School. The findings in the report were very similar in nature to those found in the report for Freeman Elementary School. There were a number of fixtures and plumbing immediately adjacent to fixtures that were imparting lead into the water. The report recommends replacement of these fixtures and related plumbing.

On December 4 and 5, 2015, staff from the DEQ and DLARA conducted a plumbing evaluation and subsequent sampling of the fixtures used for drinking water consumption at Potter Elementary School in Flint. There were a total number of 288 samples taken at 57 different locations throughout the school.

Positions:

There are no new positions to report since last week.

Concerns:

There are no new concerns to report since last week.

Significant Events:

On November 30, 2015, Director Dan Wyant and George Krisztian met with water quality expert Dr. Joan Rose of Michigan State University. The purpose of the meeting was to discuss the situation in Flint and to seek guidance on approaches for addressing the issue. Dr. Rose expressed that she felt there were three different fronts necessary to address the issue. These were to create a "Trust Plan," a "Communications Plan," and a plan to "Get the lead out." Dr. Rose provided several different examples of communities that had undergone similar challenges and what approaches worked and what approaches did not.

On December 3, 2015, representatives from the Governor's office, DEQ, and Office of Urban Initiatives met with Flint City Mayor Karen Weaver and members of her transition team. The purpose of the meeting was primarily introductory in nature, and the conversations were at a high level discussing the needs of the city as well as how communications with the residents of the city could be improved. There was also discussion of the lead testing results, both for home owners and in the schools. There was particular interest in the sampling protocol that was used to obtain samples in the schools. Overall, the conversation was very positive, with everyone agreeing that a coordinated effort was necessary to be able to effectively address the lead issue.

On December 3, 2015, Director Dan Wyant was interviewed by Lori Jane Gliha for a segment on America Tonight. The questions mainly focused on what had happened in the past and were tough. The responses echoed the message that the DEQ empathizes with the residents of Flint; we are committed to bringing about a resolution; we have a plan; we are moving forward; and we recognize that we need to rebuild trust in the community.

On December 4, 2015, representatives of the DEQ (Jim Sygo, Karen Tommasulo, and George Krisztian) met with Flint Mayor Karen Weaver and other city officials for the weekly coordination meeting. Calling into the meeting were representatives of DHHS and DLARA. The blood lead data that DHHS released the previous day was discussed, and Dr. Eden Wells provided detailed comment on the data. There was also detailed discussion regarding the Revolving Loan Fund and how it might be utilized to help address the issue of lead service line replacement.

On December 4, 2015, representatives of the DEQ (Jim Sygo, Karen Tommasulo, and George Krisztian) met with Flint Community Schools Superintendent Bilal Tawwab. The main topic of discussion was a review of the lead in drinking water data obtained to date. Superintendent Tawwab was informed that the schools, in general, were all following a similar pattern in that the sources of lead appear to be coming primarily from fixtures and the adjacent plumbing. Superintendent Tawwab indicated that his office has already made the decision to follow all recommendations in the reports. It was also agreed that a monthly meeting would be helpful to ensure that the process kept moving forward. In addition, there was discussion about a document that the DEQ would create that would explain what constituted a part per billion or ppb. A draft document without graphics was given to Superintendent Tawwab, and he indicated that the final version would be a very helpful aid to parents and students.

Changes from Previous Report:

- Draft sampling instructions were developed for lead and copper compliance sampling, incorporating comments by the U.S. Environmental Protection Agency (EPA). The revised document is being sent back to the EPA for final comment.

- DEQ staff met with DHHS staff to assist with development of a phosphate fact sheet. DHHS is the lead on this and will be submitting a revised version to the DEQ for final comment. This document is being developed to answer home owner questions regarding the safety of the addition of phosphate to the water received by the city of Flint from Detroit.

- Staff from the DEQ provided a "Standby Operations" letter to the city of Flint. The purpose of the letter is to define what practices are to be utilized in the event of an emergency.

- Staff from the DEQ followed up with the city of Flint on the status of the installation of corrosion control treatment. Pumps were installed on November 30, 2015. It is anticipated that the startup of the system will begin during the week of December 7, 2015.

Other Item:

Attached is the draft document, "What is a Part per Billion."

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
December 7, 2015

What is a Part per Billion?

1 dollar in a stack of 1 dollar bills 62 miles high

1 dime in a stack of dimes 800 miles high

1 penny in 10 million dollars

1 second in 32 years

1 foot of a trip to the moon

1 inch of a trip from the North Pole to the South Pole

1 apple in over 10,000 truckloads

1 drop of water in 850 aquariums 20 gallons in size

1 single pitch from every game, of every major league baseball team, played over the course of 700 seasons

From: Muchmore, Dennis (GOV)
Sent: Friday, December 11, 2015 11:17 AM
To: Wyant, Dan (DEQ); Scott, Allison (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV); Baird, Richard (GOV)
Cc: Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS)
Subject: RE: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

I particularly like the explanation of a Part Per Billion and suggest that just as a postscript that this be included whenever we send out a memo on these kinds of issues that use technical explanations. It really makes it easier for a citizen to understand.

From: Wyant, Dan (DEQ)
Sent: Monday, December 7, 2015 3:34 PM
To: Scott, Allison (GOV) <scotta12@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Emmitt, Beth (GOV) <emmittb@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>
Cc: Wyant, Dan (DEQ) <WyantD@michigan.gov>; Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>; Edgerton, Shelly (LARA) <EdgertonS1@michigan.gov>; Dykema, Linda D. (DHHS) <DykemaL@michigan.gov>
Subject: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

- Flint Drinking Water Action Plan Update
- Document on What is a Part Per Billion.

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions. I have also added Richard Baird to this weekly email.

Thank you.

Dan Wyant
Director

From:	Wyant, Dan (DEQ)
Sent:	Monday, December 14, 2015 4:21 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV); Baird, Richard (GOV)
Cc:	Wyant, Dan (DEQ); Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS)
Subject:	2015-12-14 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-12-14 Flint Drinking Water Action Plan Update.pdf; Resident_Sampling_Instructions-12-11-2015_508290_7.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

- Flint Drinking Water Action Plan Update
- Revised Drinking Water Lead and Copper Sampling Instructions document

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions. Thank you.

Dan Wyant
Director

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

Key Actions:

On December 9, 2015, DEQ staff held a conference call with staff from the city of Flint and the U.S. Environmental Protection Agency (EPA) to discuss DEQ's comments regarding EPA's preliminary assessment of corrosion control optimization for the city of Flint. The preliminary assessment was to identify and document activities necessary to enable the EPA and the DEQ to provide advice and support the city in maintaining optimal corrosion control while maintaining their source of water from Detroit as well as during and after the upcoming transition to the Karegnondi Water Authority (KWA) pipeline. During the discussion, it was agreed that the document needed to be broken down into two separate documents. The first document would identify the absolute needs necessary for Flint to transition to the KWA for their source water. The second document would outline actions that the city of Flint could take moving forward that would provide useful scientific information but would not impede the transition to the KWA.

On December 11, 2015, staff from the DEQ, the EPA, and the city of Flint, along with their consultant (Lockwood, Andrews & Newnam, Inc. [LAN]), met to discuss the various projects that needed to be completed in order for the city to switch its water source to the KWA. The main topic of discussion was how to balance the overarching concern of ensuring that the transition did not create safety issues, while at the same time taking precautions to ensure that the project did not run overtime or over budget. There were a number of proposals made during the discussion, and LAN will meet with the EPA on December 15, 2015, to discuss the various options in more detail.

On December 11 and 12, 2015, staff from the DEQ and DLARA conducted a plumbing evaluation and subsequent sampling of the fixtures used for drinking water consumption at the Flint Community School's administration building and Holmes 3-6 STEM Academy in Flint. There were a total number of 74 samples taken at 12 different locations throughout the administration building and 222 samples taken at 43 different locations throughout the school. There were 296 samples taken in total at the two facilities.

Positions:

There are no new positions to report since last week.

Concerns:

During the meeting on December 11, 2015, among the DEQ, the EPA, the city of Flint, and LAN, the EPA proposed that the city of Flint run a 12-inch line in addition to the existing main that would enable the city of Flint to conduct in-depth studies for switching to the KWA. The cost of this line would be approximately $4 million, and currently there

is no funding source identified that could cover this expense. The city expressed concerns that it was being asked to cover expenses for measures that other supplies would not be expected to implement. LAN will meet with the EPA to discuss other options.

Significant Event:

On December 8, 2015, the Department of Technology, Management and Budget (DTMB) confirmed that the e-mail sent from Liane Shekter Smith on August 25, 2015, to Lee-Anne Walters was successfully delivered to the gmail.com system at the e-mail address provided by Ms. Walters. The DTMB was asked to confirm delivery of that e-mail based on an accusation that the DEQ never responded to an inquiry, and then when a copy of the original e-mail was provided, an accusation was made with respect to the authenticity of the e-mail.

Changes from Previous Report:

- DHHS incorporated comments from the DEQ regarding a phosphate fact sheet being designed for public education purposes. DHHS then finalized the fact sheet utilizing the suggestions provided by the DEQ.

- Instructions for lead and copper sampling were finalized, based on comments received from the EPA. The final draft was shared with city of Flint personnel on December 11, 2015, for use in their next round of lead and copper compliance monitoring. Microsoft Word and pdf versions were posted on the DEQ Web site on December 14, 2015, to replace the previous version of the instructions.

- The city of Flint has hired an outside consultant to identify 150 Tier 1 sites for a sampling pool for use in compliance with the Lead and Copper Rule. This effort is being taken to ensure that future sampling events include verified and documented Tier 1 sampling sites to ensure compliance with the Lead and Copper Rule.

- DEQ staff visited Control Station #2 to observe the operation of the phosphate feed system. The inspection of the phosphate feed system confirmed that the system is in operation and the system is dosing at 2.5 mg/l as phosphate. A couple of minor provisions had not been completed at the time of the inspection but do not currently affect the operation of the supplemental addition of phosphate to the water.

- DEQ staff modified the Act 399 construction permit for the Flint raw water transmission line. The modification was needed to allow for rerouting of the transmission main due to poor soil conditions that were encountered along the original route.

Other Item:

Attached is the revised Drinking Water Lead and Copper Sampling Instructions document.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
December 14, 2015

DRINKING WATER LEAD AND COPPER SAMPLING INSTRUCTIONS

Dear Resident:

Thank you for helping to monitor for lead and copper in your drinking water. This sampling is required by the federal and state Safe Drinking Water Acts, and is being accomplished with the cooperation of homeowners, residents, and water system customers.

It is important that you follow these instructions so we obtain an accurate measurement of the lead and copper in your drinking water. This sample should represent the water you would typically drink and the faucet from where you drink the water. Select a faucet for sampling that was used the day before you intend to sample. Call your water supply if you have questions.

1. Water must sit idle in the pipes for an extended length of time before sampling. Therefore, do not use any water in the house for at least 6 hours before sampling. The best times to sample are early morning or after returning from work.

2. Select an unfiltered/untreated faucet in the **KITCHEN** or **BATHROOM** that is commonly used for drinking. **DO NOT** sample from a laundry sink or a hose spigot as these samples cannot be used for compliance. **DO NOT** use a faucet that has a filter attached to it unless you bypass the filter. **DO NOT** use a faucet that is connected to a home water treatment device (like a water softener, iron filter, reverse osmosis) unless you bypass the home water treatment device.

3. Place the open sample bottle below the faucet and gently open the **COLD** water tap. If you have a single handle faucet, turn it fully to the **COLD** side. Fill the sample bottle to the neck with the "first draw" of **COLD** water.

4. Tightly cap the sample bottle and place in the sample kit provided. Review the sample kit label to ensure all information contained on the label is complete and correct.

5. Answer the questions on the back of this form and sign the form.

6. Attach this form to the bottle and leave it outside your front door for pick-up.

7. Thank you again for your help. We will send you your individual results within 30 days of receiving them from the laboratory. A summary of information on this year's lead and copper monitoring will be printed in the annual water quality report that will be made available by July 1 of next year. Contact your water supply if you have questions.

If you have questions call:
Water Supply: _____

Manager or
Water Operator: _____

Phone: _____

Or Contact:
Michigan Department of Environmental Quality

DEQ Contact: _____

Phone: _____

(rev. 12/2015)

TO BE COMPLETED BY RESIDENT/CUSTOMER

A. Which faucet did you use to fill the bottle?

☐ Kitchen ☐ Main bathroom ☐ Other

If OTHER, please describe: _____

_____

B. When was the faucet last used before sampling?

Date _____ TIME _____ AM/PM

Note: If the faucet has been idle more than 24 hours, we might not analyze your sample or be able to use your sample for compliance purposes.

C. When did you fill the bottle?

DATE _____ TIME _____ AM/PM

D. Is there a faucet mount filter? ☐ YES ☐ NO

If YES, was it bypassed? ☐ YES ☐ NO

E. Is this faucet connected to a home treatment device such as a water softener, a reverse osmosis unit, an iron removal device OR is any kind of additive used in the home? ☐ YES ☐ NO

If YES, please describe: _____

_____

Note: If you have a home treatment device OR any kind of additive is used, it is possible we might not analyze your sample or be able to use your sample for compliance purposes.

F. If any plumbing repairs or replacement has been done in the home since the previous sampling event, please note this information here:

If YES, please describe: _____

_____

I have read the Drinking Water Lead and Copper Sampling Instructions and have taken a tap sample in accordance with these directions.

_____

Signature

From: Thelen, Mary Beth (DEQ)
Sent: Monday, October 12, 2015 2:30 PM
To: Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV)
Cc: Wyant, Dan (DEQ); Dickinson, Sarah (GOV)
Subject: 2015-10-12 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: Chrono 042104 Letter.pdf; __www.freep.com_story_news_local_michigan_2015_10_10_misse.pdf; FW: Filter distribution data; 2015-10-12 Action Steps Week of October 12-16.pdf

Dear Governor's Office,

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

1. 2004 Letter to EPA on Lead
2. 10/11/15 Detroit Free Press Article
3. Filter Distribution Data
4. Updated Action Steps Document

Thank you.

Dan Wyant
Director

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

Deputy(s) 11/30
Director's Office Staff
Division/Office Chief
Prepared by:
Name Richard Bennie
Division/Office WD
Log Letter No. S1R000302
File No.
☐ Delogged
EQ 0110e (Rev. 1/2001)

April 21, 2004

Mr. Benjamin H. Grumbles, Acting Assistant Administrator
United States Environmental Protection Agency
Washington, DC 20460

Dear Mr. Grumbles:

SUBJECT: State Programs to Control Lead in School Drinking Water

Thank you for your letter of March 18, 2004, requesting information on efforts being taken by the Michigan Department of Environmental Quality (MDEQ) to control lead in drinking water at schools and day care facilities. The following information has been assembled by staff in our Water Division (WD) having the regulatory responsibility for public water systems.

The WD continues to actively implement the requirements of the Lead and Copper Rule (LCR) authorized by the 1986 amendments to the federal Safe Drinking Water Act, 1976 PA 399, as amended. In Michigan, we have approximately 900 schools and day care centers that meet the definition of a nontransient noncommunity (NTNC) public water system. All of these systems rely on groundwater as their source. Fortunately, groundwater in Michigan is not typically corrosive or conducive to significant lead leaching from water system components.

As specified by the LCR, routine monitoring for lead and copper has been and continues to be conducted in these NTNC systems. Our experience has shown lead levels to be acceptable in these schools and day care centers when samples have been correctly collected from actual drinking water taps. From 1999 to 2003, the MDEQ laboratory analyzed 14,207 lead samples from NTNC public water systems. Only 2.4 percent of these sample results exceeded the lead action level of 15 parts per billion (ppb). Over 94 percent of these results reported lead levels less than or equal to half the lead action level of 7.5 ppb, with 37 percent reporting lead as not detected. On the rare occasion that one of these NTNC systems exceeded the lead action level, the owners have typically eliminated exposure by supplying bottled water or removing the offending tap until a long-term solution has been instituted. Rarely have the elevated lead levels been attributed to a system-wide problem. In Michigan, it has been repeatedly demonstrated that elevated lead levels from drinking water taps in schools are diminished by fixture replacement. In the last 5 years, we have had only 10 action level exceedences reported from a total of 1,750 NTNC public water systems. Only two of these systems have had to install corrosion control treatment.

In your letter, you state that schools are only subject to the requirements of the LCR if they have their own water system. This statement implies there is no benefit to those schools served by community public water systems. The WD feels strongly that the LCR does provide a significant benefit to schools and day care centers that are served by community public water systems (CPWS). Despite limitations in these regulations that severely restrict CPWS from using schools and day care centers as sampling sites, proper implementation of this regulation should result in reduced lead exposure for all customers. For instance, schools and day care centers connected to CPWS serving more than 50,000 residents benefited from the LCR because these water systems have had to demonstrate and maintain optimal corrosion control. These large systems were required to reduce lead levels throughout their water system to the lowest levels possible. In addition, schools and day care centers connected to CPWS serving 50,000 or fewer residents have benefited from proper implementation of the LCR because these water systems have had to achieve and maintain compliance with the lead action level. Furthermore, any CPWS that exceeded a lead action level also had to provide public notification and public service announcements in accordance with and on a frequency specified by the LCR. Therefore, schools and day care centers in these systems could choose to provide an alternate drinking water source until compliance was achieved and lead levels were reduced in their CPWS.

Your letter also references the Lead Contamination Control Act (LCCA) of 1988, which recalled drinking water coolers with lead-lined water reservoir tanks and banned new drinking water coolers with lead parts. This law caused Michigan's state plumbing board to make changes in the construction code to ban lead materials in other drinking water system components as well. Items such as 50/50 lead-tin solder for household plumbing, lead packers and lead wool used for well screens, and brass fixtures having greater than 8 percent lead were among the items banned from future use in potable water systems.

In 1988, prior to the LCCA, NTNC schools in Michigan were informed of the requirement to provide public notice regarding the potential for lead in drinking water, and they were mailed an example notice to use. All Michigan schools supplied by CPWS were also mailed the same information with a recommendation that they provide similar public notice although it was not required by law.

In 1989, over 8,000 Michigan schools and day care centers were mailed information on the LCCA. We cited concerns about lead levels and recommended a sampling and flushing protocol be instituted at all taps used for consumption, not just the water coolers required by the LCCA. In addition, staff of the WD made presentations to state school business officials and to the environmental health association representing local health departments. Articles were also published in school and day care association newsletters.

In 1989, we also conducted a random telephone survey of 40 schools and 40 day care centers (both NTNC and those connected to another water system) regarding the LCCA. Seventy-five percent of the schools were aware of the LCCA requirements and 50 percent had performed some monitoring, while 40 percent of the day care centers were aware of the LCCA requirements, and about 20 percent had sampled.

In 1990, a second mailing to all 8,000 schools and day care centers was conducted, with updated information on the recall of water coolers as required by the LCCA and with the recommendations developed in Michigan on flushing drinking water outlets. In this letter, we also asked that any sample results be reported to us even though they were specifically not required to do so by the LCCA. About 30 of 500 school districts reported results from 720 "first draw" samples taken in over 200 buildings; 2.5 percent of these results exceeded the maximum contaminant level (MCL) of 50 ppb in effect at that time for lead, 8.6 percent exceeded 20 ppb, and 17.5 percent exceeded 10 ppb. It should be noted that all (104) flushed sample results reported lead levels less than 10 ppb. We also noted that the overall average levels in first draw samples collected from kitchen faucets were higher than levels from the targeted lead lined water coolers that were the focus of the LCCA. As a result of this data, state staff did pilot testing in three school districts and provided technical assistance to schools and day care centers. Follow-up sampling and investigations were also accomplished by state staff in other school districts.

As you mentioned, the LCCA also established a technical assistance program to support state activities to reduce lead contamination in schools. The WD is aware of the United States Environmental Protection Agency (USEPA) technical assistance fact sheets, technical bulletins training seminars, and the publication, "Lead in School Drinking Water." As discussed, we conducted several mailings, made numerous presentations, conducted follow-up surveys, responded to requests for assistance, participated in several pilot tests to reduce lead levels, compiled data, conducted additional sampling, and responded to many telephone inquiries with appropriate technical assistance. All of these activities constitute our technical assistance program. However, no funding has ever been allocated to states for implementation of the LCCA. All of the activities performed by Michigan in response to the requirements of the LCCA were done so with resources diverted from other programs. The primary requirement of the LCCA was for schools that identified coolers on a list of those suspected to contain lead lining to repair, replace, remove, or sample to show that these coolers did not contribute to lead in the drinking water. If the schools did sample, they were also required to tell their customers that results were available. If schools had no coolers on the list, nothing further was required by the LCCA. Despite this limited application of the LCCA, Michigan has performed numerous activities beyond the scope specified in the LCCA without any federal funding.

Finally, you ask what the USEPA can do to further efforts in this voluntary program. We have several suggestions. First, we recommend that the USEPA consider allowing schools to be considered Tier 1 sampling sites in CPWS so that we can gain more information on possible lead exposure in schools. Allowing CPWS to use schools will afford them an opportunity to use sampling sites that are more accessible than private homes, more likely to be geographically distributed throughout their system, and likely to satisfy a large constituency (parents). From our experience, we also recommend that the USEPA consider a sampling protocol for schools that would determine if the fixtures at kitchen taps are a problem that could be simply resolved by replacement. The USEPA may also want to consider requiring the owner of these facilities to replace any remaining lead service lines supplying schools or day care centers.

In conclusion, we understand that the detection of elevated lead levels at customer taps in Washington, DC, has caused the USEPA to focus on this issue. However, the MDEQ wants to emphasize that despite the limitations in this law, proper implementation of the LCR accomplishes adequate reduction in lead levels. Failure to carry out some rule provisions in one case should not be cause for disparaging implementation across the country, or for unnecessary revamping of this regulation. If you need further information or assistance, please contact Mr. James K. Cleland, Assistant Division Chief, WD, at 517-241-1287, or you may contact me.

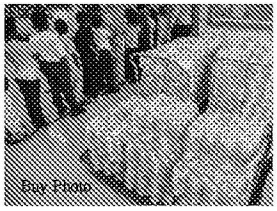
Sincerely,

Steven E. Chester
Director
517-373-7917

cc: Mr. Stanley F. Pruss, Deputy Director, MDEQ
Mr. Jim Sygo, Deputy Director, MDEQ
Ms. JoAnn Merrick, Senior Executive Assistant to the Director, MDEQ
Mr. Andrew W. Hogarth, MDEQ
Mr. Richard A. Powers, MDEQ
Mr. James K. Cleland, MDEQ

Chemical testing could have predicted Flint's water crisis

By John Wisely and By Robin Erb, Detroit Free Press *7:14 a.m. EDT October 11, 2015*



(Photo: Ryan Garza, Detroit Free Press)

Chemical tests could have predicted the corrosion in the pipes that is now being blamed for endangering the health of thousands of vulnerable Flint residents by elevating lead levels in their water supply, experts say.

As the city scrambles to reconnect to the Detroit water system, the absence of such testing on the Flint River water is one of many missed opportunities that might have lessened or avoided the crisis, they say.

"Any competent person should have seen this water will eat up iron and eat up lead," Marc Edwards, a Virginia Tech professor and national expert on pipe corrosion, told the Free Press. Edwards said his own research shows that Flint River water, without additional controls, corrodes the lead inside pipes at 19 times the rate of water piped from Detroit.

DETROIT FREE PRESS

Why are lead levels in children higher in 2 Flint ZIP codes?

(http://www.freep.com/story/news/local/michigan/2015/10/10/lead-danger-basics/73683934/)

Among red flags that popped up over the last 18 months:

- General Motors announced in October 2014 that it was pulling its engine plant off Flint water after workers there began noticing rust spots on newly machined parts. The city approved letting GM switch to water from Flint Township, but didn't change its own water treatment procedures.

- The University of Michigan-Flint alerted city officials that it found elevated lead levels in its water in January, prompting the school to shut off some some drinking fountains and add water filters to others.

- Testing in the fall of 2014 found E. coli in the city's water system, prompting "boil water" notices. The city's procedures for killing the E. coli produced chemical by-products known as trihalomethanes, which can cause cancer with long-term exposure. The city had to adopt additional measures to reduce them.

"Common sense tells you that the Flint River is not your first choice of drinking water," said Shawn McElmurry, who teaches civil and environmental engineering at Wayne State University and has followed Flint closely.

DETROIT FREE PRESS

Q & A on Flint's water troubles

(http://www.freep.com/story/news/local/michigan/2015/10/10/flint-water-qa/73693500/)

Experts say the testing could have been done before the switch from the Detroit system. But officials from the Michigan Department of Environmental Quality note that that kind of testing isn't required under federal drinking-water rules and has never been done in Michigan. What's more, they said, the Flint River water, treated in the city's plant, was already approved as a backup supply in case of interrupted service from Detroit.

Other experts said the testing is more nuanced, part art and part science. Still, they acknowledge that by examining things such as the acidity of water and other factors, engineers could have estimated how much corrosion to expect once water from the Flint River was pumped into homes and businesses across the city.

"Not every engineer in our field could do it, it's a pretty specialized area," said David Cornwell, a Virginia-based engineering consultant and a technical adviser to the National Drinking Water Advisory Council, a group of experts that works with the Environmental Protection Agency on drinking water issues.

DETROIT FREE PRESS

Flint doctor makes state tell lead truth

(http://www.freep.com/story/news/local/michigan/2015/10/10/hanna-attisha-profile/73600120/)

The fix now will cost $12 million — a combination of money from the state, the city and the Flint-based non-profit C.S. Mott Foundation, which has pledged $4 million to help pay Detroit for the water while Flint waits to connect to a new water authority in partnership with Genesee County.

Water woes began shortly after switch from Detroit

Flint began using Flint River water as its main supply in April 2014. Before that, it bought Lake Huron water that was treated and delivered by the Detroit Water and Sewerage Department. Detroit ended that deal one day after Flint voted to join Genesee County in forming the Karegnondi Water Authority, which plans to build its own Lake Huron intake and pipe the water to the Flint Water Plant.

Flint officials wanted to remain on Detroit's system, but the two sides couldn't agree on a price and a contract length.

Once the switch to river water was made, the city, which was operating under a state-appointed emergency financial manager, faced one problem after another. Residents packed city council meetings and held protest marches to voice their anger about water quality.

Experts say Flint's lead problems could have been held in check if the city had added phosphates to the water, as Detroit has done for years. The treatment doesn't eliminate lead entirely, but it does form a film over the pipes themselves, effectively sealing in the lead and reducing the amount in the water to acceptable levels.

But when Flint switched to river water, it didn't add phosphates. Instead it added lime to soften the water.

"The lime softening process has the added benefit of some corrosion control," said Liane Smith, chief of Michigan's Office of Drinking Water and Municipal Assistance.

Smith said that once the switch was made, the state began testing for lead and copper, as is required by the federal Environmental Protection Agency.

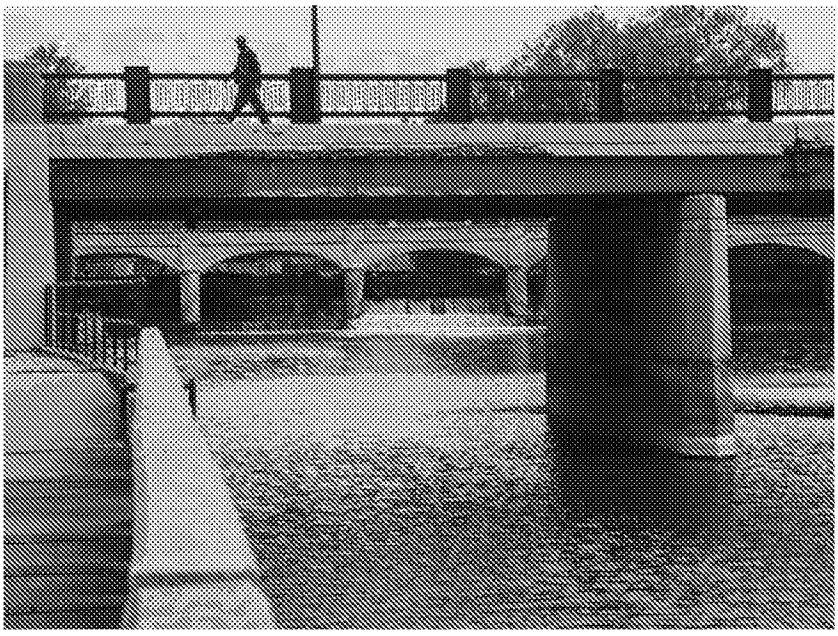
"Any new supply that comes along has to do two six-month rounds of monitoring for lead and copper out in their distribution system," Smith said. If those tests show corrosion, additional steps, such as perhaps adding phosphates, are supposed to be followed.

The first round of testing completed in December 2014 showed lead levels of 6 parts per billion. The second round, completed in June of this year, showed they had almost doubled to 11 parts per billion. The EPA requires a remediation plan when levels reach 15 parts per billion and can demand action even below that mark on systems that serve more than 50,000 people.

Cornwell said phosphates are considered more effective than lime softening and they don't raise treatment costs substantially. But they have side effects, he said.

"The negative is that nobody really likes phosphates out in the environment," he said, noting they can find their way into rivers and lakes, fueling algae blooms such as the ones in Lake Erie.

"There is more to it than saying we're just going to pump phosphates," Cornwell said. "You may have to make other adjustments."



A man crosses a bridge over the Flint River near the Hamilton Dam in downtown Flint on Thursday, Oct. 8, 2015. Flint has been getting its drinking water from the river since last year. *(Photo: Ryan Garza, Detroit Free Press)*

Flint River water a challenge to clean up

Flint River water was always going to pose more treatment challenges than the cold, clear water that comes from the bottom of Lake Huron, experts said.

The river has been marked by decades of industrial pollution. Its tributaries channel farmland run-off into it and its temperature varies by season. Warmer water can promote bacteria growth. All of those factors make treating it to drinking-water standards more difficult.

"The city was doing the best it could" to clean up pollutants, Edwards said, but added that corrosivity was inevitable.

He blamed the problems on a lack of expertise rather than intentional wrongdoing.

"I think it started relatively innocently. They didn't understand testing and they didn't understand corrosivity," he said.

Last month, Edwards' research group released results of corrosion tests it conducted on Flint's water. For the test, researchers used copper pipe with lead solder, which is common in older homes.

The tests showed Flint River water without added phosphates corroded the lead at 19 times the rate of Detroit water. Even when phosphates were added, it corroded at 16 times the rate of the Detroit water.

"From the second it was switched, it was doomed from the lead problem," Edwards said.

When residents began complaining about the water, the city and state should have begun to rethink their testing, Edwards said.

Problems were evident soon after the switch.

In August last year, E. coli was found in the water and residents were urged to boil it before drinking it. The city treated it with disinfectant, but that produced by-products in the water known as trihalomethanes. Long-term exposure to them can cause cancer, so the city began making treatment adjustments.

Then as summer turned to fall, workers at Flint's GM engine plant began seeing rust on newly machined engine parts. GM's lab tests found high levels of chloride in the water used to wash down metal shavings and cool parts heated from the rapid machining action inside the plant, GM spokesman Tom Wickham said.

GM tried to treat the water in the plant. It had drinking water delivered and tankers brought water for operations, Wickham said.

But it eventually sought to connect to Flint Township's water system, which is supplied by Detroit.
In December the connection was finalized and Detroit water began flowing to the plant, via Flint Township.

In January 2015, lead was showing up at the University of Michigan's Flint campus. School leaders become concerned about the water supply after the city issued "boil water" advisories to kill E. coli and realized they'd never done routine, thorough water testing.

Tests in January and February showed elevated levels of lead and other problems in isolated areas —specifically in two infrequently used drinking fountains in two older buildings.

Follow-up testing found other elevated levels of lead, and those sinks and fountains then were either fitted with filters or removed, said Mike Lane, director of the environment, health and safety department

He said officials suspected the problem was in their pipes but notified the city anyway.

In June, Miguel Del Toral of the Environmental Protection Agency drafted an internal memo noting the problems Flint had experienced with E. coli and the by-products of the chemicals used to treat it.

"A major concern from a public health standpoint is lack of corrosion control treatment in the city of Flint for mitigating lead and copper levels in the drinking water," Del Toral wrote.

The memo caused a stir when the American Civil Liberties Union exposed it. But the EPA told the Free Press on Friday that the memo was a draft that was never delivered to MDEQ officials, including Smith, whose names appear on it.

The EPA did say it discussed the concerns raised in the memo with MDEQ officials in July, but the agency did not respond immediately to a request for details.

Leaching lead not unique to Flint

The problem of lead leaching into drinking water isn't unique to Flint. Across Michigan and around the country, pipes that carry water from the mains under the street into homes, businesses and schools often contain lead. Inside homes and business, many older plumbing fixtures and soldered pipes also contain it.

Cornwell said officials from across the nation have formed a working group to review the lead and copper rules and look for ways to improve them. Among the things being considered is a national effort to remove lead pipes from water systems.

But even if a national consensus formed around that idea, the process would take years, Cornwell said. A funding source for such a massive project also would be needed.

Still, he said, removing the pipes is the only surefire way to eliminate lead from the system.

"We can only do so much with water chemistry," he said. "We can only turn the knob so much."

Contact John Wisely: 313-222-6825 or jwisely@freepress.com

Contact Robin Erb: 313-222-2708 or rerb@freepress.com.

TIME LINE

April 16, 2013: Flint signs agreement to join the Karegnondi Water Authority.

April 17, 2013: Detroit terminates contract with Flint, giving it one year to find a new water source.

April 24, 2014: Flint switches from Detroit water to Flint River water.

April 30, 2014: Flint closes all valves connecting to Detroit water supply.

June-Sept. 2014: Flint residents complain about smell, taste and discoloration of water.

Dec. 16, 2014: Michigan Department of Environment Quality cites Flint for exceeding limits on disinfection by-products.

Dec. 27, 2014: Flint's General Motors engine plant, citing high chloride levels in the water, switches off its hook-up to Flint, drawing water instead from neighboring Flint Township.

Jan. 9, 2015: Concerned about Flint's water warnings, University of Michigan's Flint campus begins testing its water, detecting lead in isolated,

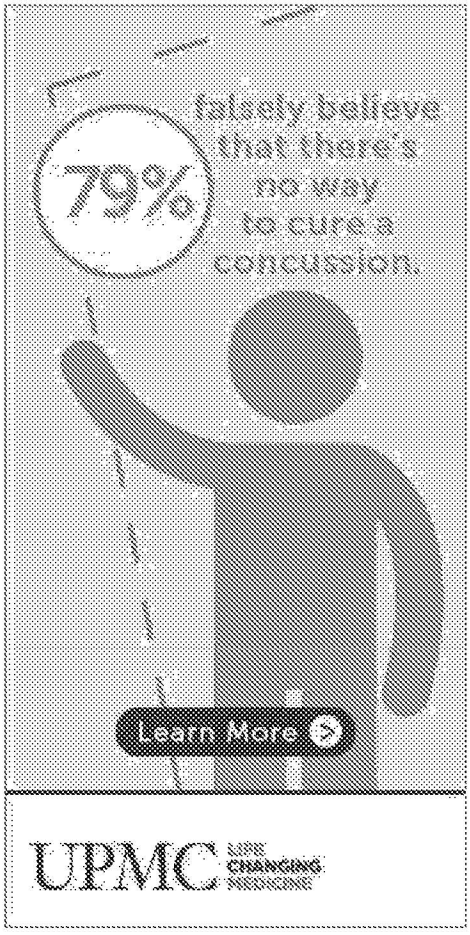
infrequently used areas.

June 24, 2015: Environmental Protection Agency drafts a report raising concerns about lead in Flint's water system as a result of corrosion. It doesn't send the report, but discusses its concerns with MDEQ officials in July.

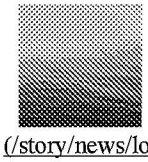
Sept. 24, 2015: Dr. Mona Hanna-Attisha releases data showing spike in blood-lead levels in Flint children.

Oct. 2, 2015: State officials tell room packed with reporters that there's a problem with Flint's water.

Read or Share this story: http://on.freep.com/1LoJP7S



MORE STORIES



MSU researchers studying algae on Torch Lake

(/story/news/local/michigan/2015/10/12/michigan-state-researchers-studying-algae-on-torch-lake/73803582/)

(/story/news/local/michigan/2015/10/12/michigan-state-researchers-studying-algae-on-torch-lake/73803582/)

Oct. 12, 2015, 6:43 a.m.

Gun laws across U.S. at issue in case before high court

(/story/news/nation/2015/10/12/gun-laws-across-us-balance-supreme-court-considers-chicago-case/73794388/)

(/story/news/nation/2015/10/12/gun-laws-across-us-balance-supreme-court-considers-chicago-case/73794388/)

Oct. 12, 2015, 12:06 a.m.

Flint doctor makes state tell lead truth

(/story/news/local/michigan/2015/10/10/hanna-attisha-profile/73600120/)

(/story/news/local/michigan/2015/10/10/hanna-attisha-profile/73600120/)

Oct. 11, 2015, 10 p.m.

From: Wyant, Dan (DEQ)
Sent: Monday, October 12, 2015 1:56 PM
Subject: FW: Filter distribution data

From: Lasher, Geralyn (DHHS)
Sent: Friday, October 09, 2015 5:44 PM
To: Wyant, Dan (DEQ); Lyon, Nick (DHHS); Grijalva, Nancy (DHHS); Wurfel, Brad (DEQ); Minicuci, Angela (DHHS); Eisner, Jennifer (DHHS); Hertel, Elizabeth (DHHS)
Subject: Filter distribution data

MDHHS purchased total water filter distribution 10/6-10/9 = 7,731

Tuesday
4,588 filters were distributed through MDHHS offices, GCCARD the local Community Action Agency, Flint Housing Commission, Early Head Start, Mott Park Neighborhood Association and Commissioners.

Wednesday
1,438 filters were distributed through MDHHS offices and GCCARD.

GCCARD is coordinating filter installations for seniors and home bound individuals. The UAW pipe fitters are donating in kind services of $20,000 for this installation. United Way has given filters to homeless shelters and any undocumented immigrants that have come to the Center. Filters were delivered to several senior housing complexes for maintenance to install.

Thursday
1046 filters were distributed through MDHHS offices and GCCARD.

MDHHS is also working to inform licensed non-school based daycares on where to get water filters.

Friday
635 Filters were distributed through MDHHS offices and GCCARD. **24** water pitchers were distributed as well

City of Flint Water
Action Steps for Week of October 12-16

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Identify schools and prioritize for assessment	GCISD, GCHD, DEQ, DHHS, and Flint	Steve Busch	
2.	Get DLARA plumbers organized	DEQ and DLARA	Steve Busch	
3.	Complete sampling instructions	DEQ, DHHS, and EPA	Pat Cook	
4.	MDARD information for restaurants	MDARD, DHHS, and DEQ	Dana DeBruyn	
5.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	
6.	Approve Flint plan for water line	DEQ, Flint, and Genesee County	Mike Prysby	
7.	Lead education plan for schools for drinking water	DHHS and DEQ	Liane Shekter Smith	
8.	Begin regular meetings with Flint	DEQ and Flint	George Krisztian	
9.	Schedule Water Treatment Plant tour	DEQ and Flint	George Krisztian	
10.	Meet with schools and DLARA – invitation only	DEQ, DLARA, and Flint schools	Karen Tommasulo	
11.	Update DEQ Web page	DEQ	Karen Tommasulo	
12.	Contact DHHS to see where they are with United Way regarding emergency declaration	DEQ and DHHS	George Krisztian	
13.	Circulate protocol draft with EPA	DEQ and EPA	Liane Shekter Smith	
14.	Contact city about homeowner sample delivery	DEQ and Flint	George Krisztian	
15.	Communicate to MDARD and Flint that business samples should be coordinated though DEQ laboratory	DEQ, MDARD, and Flint	Liane Shekter Smith George Krisztian	Liane to call MDARD and George to call Flint

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
16.	Figure out number of samples from schools and child care facilities	DEQ	Liane Shekter Smith Pat Cook Steve Busch	
17.	Confirm Linda Dykema is Point of Contact for DHHS	DEQ	George Krisztian	Done
18.	Contact KWA to find out if there are any bottlenecks we need to remove	DEQ and KWA	Mike Prysby	
19.	Expedite 399 Plan and Phosphate Plan	DEQ and Flint	Mike Prysby	
20.	Get update on service line index card conversion and identify where partial replacements exist	DEQ and Flint	Steve Busch	
21.	Make sure DHHS gets information so they can cross reference	DEQ and DHHS	Steve Busch	
22.	Legislative contacts	DEQ	Maggie Pallone	Conference call with Sen. Jim Ananich scheduled for October 12 at 3 pm
23.	Legislative time line and summary	DEQ	Maggie Pallone	
24.	Reconnect with State Superintendent Brian Whiston	DEQ and Department of Education	Dan Wyant	Call scheduled for October 12 at 4:30 pm
25.	Conduct After Action Plan	DEQ	George Krisztian	To be scheduled for October 15
26.	Change Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone Liane Shekter Smith Sonya Butler	

From: Shaler, Karen (DEQ) on behalf of Wyant, Dan (DEQ)
Sent: Tuesday, October 06, 2015 5:05 PM
To: Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Dickinson, Sarah (GOV)
Subject: Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

The Flint Drinking Water Action Plan was announced on October 2, 2015. It included the following:

- Testing in Flint public schools immediately
- Offered free water testing to Flint residents
- Provided free water filters to residents with concerns or who are included in state assistance programs
- Expanding health exposure testing of individual homes
- Accelerating corrosion controls in the Flint drinking water system
- Accelerating water system improvements to address replacing lead service lines
- Expediting the completion of the Karegnondi Water Authority pipeline
- Expanding a Safe Drinking Water Technical Advisory Committee
- Named Dr. Eden Wells as the Flint drinking water public health advisor
- Boosted a comprehensive lead education program

Testing in Flint Public Schools Immediately

Samples were taken on October 2 and were received at DEQ laboratory over the weekend. Test results to date indicate 37 samples tested, 4 of which exceeded a federal action level, and 1 of those 4 was a significant outlier. We will be compiling detailed information about which schools and area codes the test results came from and will be providing that information in our next update.

We have met with DHHS, and we are working on developing response protocols, a communications plan, and guidance for schools when this data is reported.

Offered Free Water Testing to Flint Residents

We have received 4 sets of samples from Flint that represent individual residents. We will be compiling the total number and the results of those samples and reporting in a future report.

Provided Free Water Filters to Residents with Concerns or Who are Included in State Assistance Programs

DHHS held organizational meetings in Flint on October 5, and filter distribution by DHHS started on October 6. Nick Lyon in DHHS is taking the lead in filter distribution.

Expanding Health Exposure Testing of Individual Homes

Dr. Wells and Dan Wyant have been in conversations about a protocol for exposure testing. Dr. Wells will take the lead on developing the protocol.

Accelerating Corrosion Controls in the Flint Drinking Water System

A conference call was held with U.S. EPA Regional Administrator Susan Hedman and national corrosion control experts. We asked two questions:

1. **Which is a safer water source – DWSD or Flint River?**
2. **If you don't have an opinion on the safer source, what criteria should we use for an evaluation?**

EPA staff would not commit to a preference, but their evaluation of the criteria clearly lead to the conclusion that DWSD was a safer water source. EPA committed to submitting technical assistance to the Safe Drinking Water Technical Advisory Committee (Advisory Committee) meeting, which will be held on October 7 at 2:00 p.m. in Flint City Hall.

DEQ met with the Flint Mayor, the city manager, and their water staff. Flint agreed to expediting corrosion controls. We discussed the agenda for the Advisory Committee meeting. The Advisory Committee will be asked to evaluate two respective water sources at their Wednesday meeting.

We expect the Advisory Committee to recommend the water source that would address not only lead safety but also other water safety issues.

Accelerating Water System Improvements to Address Replacing Lead Service Lines

Conversations with Congressman Kildee and EPA have clarified the state would be allowed to use Drinking Water Revolving Loan funds to replace private drinking water service lines. Senator Ananich has been approached to introduce language clarifying the state's authority.

Expediting the Completion of the Karegnondi Water Authority Pipeline

Dan Wyant has talked to Genesee County Drain Commissioner Jeff Wright. Mr. Wright has provided a list of issues that would help expedite the completion of the Karegnondi Water Authority pipeline. They include truck weight and frost law exemptions, talent identification, and expediting permits.

Expanding a Safe Drinking Water Technical Advisory Committee

EPA has appointed their national technical expert to the Advisory Committee, and we have appointed Alfred Franzblau, M.D., Professor of Environmental Health Services, University of Michigan, to the Advisory Committee.

Named Dr. Eden Wells as the Flint Drinking Water Public Health Advisor

Boosted a Comprehensive Lead Education Program

Other Updates

- Dan Wyant was interviewed on October 6 by CBS Evening News during filter distribution in Flint. Questions asked were:

- Was it a mistake to go to Flint River water?
  Answer: We draw water from the surface waters; we treat it to safe drinking water standards. At issue is lead exposure. Lead exposure must be addressed. Actions are being taken to address the issue.
- Did you put kids at risk?
  Answer: Lead exposure is a serious issue, and steps need to be taken to limit lead exposure.
- Why did it take so long?
  Answer: DEQ has been there from the beginning addressing the issue of Flint water. Recent tests justify and require the actions taken. Action steps address short-term, intermediate, and long-term lead issues to ensure public safety and confidence of the drinking water.

- Dan Wyant also spoke to the Governor about Flint funding needs. A meeting is scheduled for October 7 at 8:00 a.m. to further discuss proposals.
- What we are telling Flint citizens is:
  - Have your water tested
  - Use only cold water for drinking, cooking, and preparing formula
  - Run water before use if it has not been used for several hours
  - Obtain a water filter approved for lead removal
  - Purchase lead-free plumbing components
  - Remove entire lead service lines

From: Emmitt, Beth (GOV)
Sent: Tuesday, October 06, 2015 8:39 AM
To: Dickinson, Sarah (GOV)
Subject: FW: Flint Water updates

Follow Up Flag: Follow up
Flag Status: Completed

From: Wyant, Dan (DEQ)
Sent: Tuesday, October 06, 2015 8:30 AM
To: Scott, Allison (GOV) <scotta12@michigan.gov>
Cc: Emmitt, Beth (GOV) <emmittb@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: Re: Flint Water updates

Yes.

Sent from my iPhone

On Oct 6, 2015, at 8:23 AM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:

> See below - DAN can your team assist with daily updates to GOV for his nightly briefing so he is not up to date. Your team would be responsible for collecting info from other depts involved etc
>
> Let me know if you have questions or concerns
>
> Thanks
>
> Thanks
>
> Sent from my iPhone
>
> Begin forwarded message:
>
> > **From:** "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>
> > **Date:** October 6, 2015 at 8:20:24 AM EDT
> > **To:** "Scott, Allison (GOV)" <scotta12@michigan.gov>
> > **Cc:** "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>
> > **Subject: Re: Flint Water updates**
> >
> > Update from Dan in briefing. Comms to also send update for briefing on stories or announcements upcoming. But Dan will have most accurate testing and analysis details to report.

On Oct 6, 2015, at 8:14 AM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:

What is most effective accurate rout? Dan provided update for briefing each day or does Comms shop speak to DEQ Comms and provide?

Sent from my iPhone

> On Oct 6, 2015, at 8:05 AM, Snyder, Rick (GOV) <[redacted]> wrote:
>
> We need a better update system re Flint Water.
>
> I saw in the press this am that DHHS announced yesterday that water filters would start being given out today. This should have come internally with more detail. I had press questions last night.
>
> Overall, we should have a daily report on Flint until our recommendations are fully implemented.
>
> For example:
>
> 1. What are the water test results from the public schools?
>
> 2. How many free test have been requested? How many have been done? How many remain and how long have they been waiting? What are the results - no lead, lead consistent with history, higher levels?
>
> 3. How many filters have been distributed? How many unfulfilled requests?
>
> 4. New blood test results? Especially in the two zip codes.
>
> 5. Analysis of tech advisory group
>
> 6. Analysis of the GLWA vs. Flint River vs. KWA.
>
> Thanks
>
> Rick

Sent from my iPad

From: Kennedy, Jordan (GOV)
Sent: Wednesday, October 07, 2015 6:48 PM
To: Dickinson, Sarah (GOV)
Subject: Revised Press Release
Attachments: 151008 Flint water release_V2.docx

Importance: High

I'm sorry about all of the confusion. Here's the updated PR.

Jordan Kennedy
Communications Representative
Executive Office of Governor Rick Snyder
Phone: 517.335.6397

From: Biehl, Laura (GOV)
Sent: Wednesday, October 07, 2015 6:46 PM
To: Murray, David (GOV) <MurrayD1@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Heaton, Anna (GOV) <HeatonA@michigan.gov>; Kennedy, Jordan (GOV) <KennedyJ4@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>; Paciorek, Josh (GOV) <Paciorekj@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Minicuci, Angela (DHHS) <MinicuciA@michigan.gov>; Eisner, Jennifer (DHHS) <EisnerJ@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Tommasulo, Karen (DEQ) <TommasuloK@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Calley, Brian (GOV) [redacted] Forstner, Nathaniel (GOV) <forstnern1@michigan.gov>
Subject: RE: URGENT review please -- Draft Flint water release

See new version attached. Small revisions made and placeholders added for Mayor and Mott Foundation Quotes.

From: Murray, David (GOV)
Sent: Wednesday, October 07, 2015 6:12 PM
To: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Biehl, Laura (GOV) <BiehlL@michigan.gov>; Heaton, Anna (GOV) <HeatonA@michigan.gov>; Kennedy, Jordan (GOV) <KennedyJ4@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>; Paciorek, Josh (GOV) <Paciorekj@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Minicuci, Angela (DHHS) <MinicuciA@michigan.gov>; Eisner, Jennifer (DHHS) <EisnerJ@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Tommasulo, Karen (DEQ) <TommasuloK@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Calley, Brian (GOV) [redacted] Forstner, Nathaniel (GOV) <forstnern1@michigan.gov>
Subject: URGENT review please -- Draft Flint water release

Team,

Please review this draft press release for the Thursday announcement in Flint. This incorporates some suggested edits to the strong draft from DEQ earlier today.

Thank you very much.

Gov. Rick Snyder: Move back to Detroit water provides best protection for public health in Flint

State, Mott Foundation and city form partnership to fund switch

FLINT, Mich. – Flint families and children will be better protected by reconnecting with the Great Lakes Water Authority as the source of the city's drinking water, Gov. Rick Snyder said.

Snyder said Thursday that he will request the state Legislature to provide a portion of the $12 million needed to reconnect with the authority, with the Flint city government providing $2 million and the Charles Stewart Mott Foundation donating $4 million.

The Michigan Department of Health and Human Services and the Department of Environmental Quality today also committed an additional $3.5 million for water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

Flint city leaders requested the state's help to fund the reconnection after a Wednesday meeting of Flint's Technical Advisory Committee. Flint's move to the Great Lakes Water Authority is expected to cost about $1.3 million per month until the Karegnondi Water Authority is completed next summer.

"All Flint residents need clean, safe drinking water," Snyder said. "The technical experts helping the city on its water advisory all agree this move back to the Great Lakes Water Authority provides the best public health protection for children and families. This effort today is the result of people coming together to solve a problem. I appreciate Detroit's willingness to reconnect with Flint, the Mott Foundation's generous donation, and the dedication of all parties to come together to protect Flint families and children."

The move to Detroit water, which is drawn from Lake Huron, carries many public health benefits. As large bodies of water, the Great Lakes are naturally prone to fewer problems from large rain events and other runoff issues that can be present in shallower rivers. Additionally, the Great Lakes Water Authority has already fully optimized its corrosion control, using phosphates to help coat the insides of pipes and prevent lead from leaching into the water.

However, reconnecting with the authority will not completely resolve the city's problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control. Additionally, some households in the city could experience lead in their drinking water until all lead pipes and plumbing are replaced.

To best protect public health, Snyder said state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead in water.

Free filters are available for current MDHHS clients at the 125 E. Union St. or 4809 Clio Road MDHHS office locations.

For residents who are not currently enrolled in MDHHS assistance programs, free filters are available at the Genesee County Community Action Resource Department offices at 2727 Lippincott and 601 North Saginaw in

Flint. Staff will be at all four locations from 9 a.m. to 4 p.m., Monday through Friday, to distribute filters and assist residents who have questions about proper installation.

At the Lippincott location only, extended hours will be offered this weekend, including until 7 p.m. on Thursday and Friday and from 10 a.m. to 2 p.m. on Saturday.

Other good practices for residents concerned about lead include turning on the cold water tap and running the water until it's as cold as it will go. Additionally, only use cold water for cooking, drinking and especially mixing baby formula.

School test results released; more investigation planned

The state today also released the first results from its lead screening program in schools and homes. Of 37 total samples taken at 13 buildings, four samples spread over three buildings exceeded the federal action level of 15 parts per billion.

However, this sampling provides only an initial screen, and the state is committing to further testing water and inspecting plumbing at these schools. Until testing is complete, schools are advised to continue using bottled water and filtration as a precaution to protect children.

In addition, free testing is still available for any other Flint school, including daycares and Head Starts. Free testing is also available for any Flint resident.

Additional information, including more detailed lead screening results, is available at www.michigan.gov/flintwater.

###

Dave Murray
Deputy Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

RICK SNYDER
GOVERNOR

BRIAN CALLEY
LT. GOVERNOR

CONTACTS:	FOR IMMEDIATE RELEASE
Sara Wurfel or Dave Murray Governor's Office: 517-335-6397 Brad Wurfel, 517-284-6713 Department of Environmental Quality Jennifer Eisner, 517-230-9804 Department of Health and Human Services	Thursday, Oct. 8, 2015

Gov. Rick Snyder: Move back to Detroit water provides best protection for public health in Flint

State, Mott Foundation and city form partnership to fund switch

FLINT, Mich. – Flint families and children will be better protected by reconnecting with the Great Lakes Water Authority as the source of the city's drinking water, Gov. Rick Snyder said.

Snyder said Thursday that he will request the state Legislature to provide half, or $6 million, of the $12 million needed to reconnect with the authority. The Flint city government will provide $2 million and the Charles Stewart Mott Foundation will donate $4 million.

"All Flint residents need clean, safe drinking water," Snyder said. "The technical experts helping the city on its water advisory all agree this move back to the Great Lakes Water Authority provides the best public health protection for children and families. This effort today is the result of people coming together to solve a problem. I appreciate Detroit's willingness to reconnect with Flint, the Mott Foundation's generous donation, and the dedication of all parties to come together to protect Flint families and children."

The Michigan Departments of Environmental Quality and Health and Human Services today also committed an additional $3.5 million for water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

Flint city leaders requested the state's help to fund the reconnection after a Wednesday meeting of Flint's Technical Advisory Committee. Flint's move to the Great Lakes Water Authority is expected to cost about $1.3 million per month until the Karegnondi Water Authority is completed next summer.

INSERT MAYOR QUOTE HERE

The move to Detroit water, which is drawn from Lake Huron, carries many public health benefits. As large bodies of water, the Great Lakes are naturally prone to fewer problems from large rain events and other runoff issues that can be present in shallower rivers. Additionally, the Great Lakes Water Authority has already fully optimized its corrosion control, using phosphates to help coat the insides of pipes and prevent lead from leaching into the water.

However, reconnecting with the authority will not completely resolve the city's problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control. Additionally, some households in the city could experience lead in their drinking water until all lead pipes and plumbing are replaced.

INSERT MOTT FOUNDATION QUOTE HERE

To best protect public health, Snyder said state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead exposure.

Free filters are available for current MDHHS clients at the 125 E. Union St. or 4809 Clio Road MDHHS office locations. For residents who are not currently enrolled in MDHHS assistance programs, free filters are available at the Genesee County Community Action Resource Department offices at 2727 Lippincott and 601 North Saginaw in Flint. Staff will be at all four locations from 9 a.m. to 4 p.m., Monday through Friday, to distribute filters and assist residents who have questions about proper installation. At the Lippincott location only, extended hours will be offered this weekend, including until 7 p.m. on Thursday and Friday and from 10 a.m. to 2 p.m. on Saturday.

Other good practices for residents concerned about lead include turning on the cold water tap and running the water until it's as cold as it will go. Additionally, only use cold water for cooking, drinking and especially mixing baby formula.

School test results released; more investigation planned

The state today also released the first results from its lead screening program in schools and homes. Of 37 total samples taken at 13 buildings, four samples spread over three buildings exceeded the federal action level of 15 parts per billion.

However, this sampling provides only an initial screen, and the state is committing to further testing water and inspecting plumbing at these schools. Until testing is complete, schools are advised to continue using bottled water and filtration as a precaution to protect children.

In addition, free testing is still available for any other Flint school, including daycares and Head Starts. Free testing is also available for any Flint resident.

Additional information, including more detailed lead screening results, is available at www.michigan.gov/flintwater.

###

From:	Wyant, Dan (DEQ)
Sent:	Wednesday, October 07, 2015 7:09 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Dickinson, Sarah (GOV); Emmitt, Beth (GOV)
Subject:	Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	City of Flint Water Funding Solution.pdf; FLINT SCHOOL TESTING RESULTS.DOCX; Drinking Water Regulations for Monitoring of Lead in Schools and Child C....doc; Response to Corrosion Control Questions.docx; Fwd: TAC Meeting Highlights; CC Meeting Minutes 3-25-2013 (1).doc; Flint.pdf; KWA Contract (amended) 130165.2.pdf

Governor Snyder,

I wanted to provide you with the attached documents to address a number of the questions that you are asking today. A full briefing for the press conference, including press release, talking points, run of show, and frequently asked questions, will be provided by your team. Included in this e-mail are the following attachments:

1. Flint Drinking Water FY 2016 supplemental budget request summary
2. Summary of the Flint schools water testing results and our response to the results
3. Drinking water regulations for monitoring lead in schools and child care centers
4. Response to the questions on corrosion control
5. Summary of today's Safe Drinking Water Technical Advisory Committee meeting
6. Flint City Council Minutes from March 25, 2013; the Resolution to Purchase Capacity from Karegnondi Water Authority; and the Amended Contract

<u>Other Updates</u>

Mayor Duggan and Sue McCormick of DWSD were contacted, briefed, and are supporting tomorrow's announcement. Both have indicated they would provide positive comments supporting the decision.

Dan Wyant

City of Flint Water - Funding Solution
State of Michigan Commitment

Agency	GF/GP	Gross	Comments
Filters:			
Health & Human Services	$1,016,000	$1,016,000	AY15 work project
Health & Human Services	$0	$1,000,000	DEQ State Restricted Settlement Funds provided to HHS Emergency Services local office (FY16 appropriation).
Subtotal Filters:	**$1,016,000**	**$2,016,000**	
Reconnect to DSW:			**Reconnection costs ~$1.3m/month x 9 mos. to be shared by state & Flint**
Environmental Quality	$5,000,000	$6,000,000	DEQ State Restricted Settlement Fund of $1m; balance GF/GP
Subtotal Reconnect:	**$5,000,000**	**$6,000,000**	
Testing Costs:			
Environmental Quality	$1,000,000	$1,000,000	Additional tests at state lab; cost per sample: $26
Subtotal Testing:	**$1,000,000**	**$1,000,000**	
Additional Agency Support:			
LARA	$0	$200,000	Support for plumbing inspectors to do schools (public and parochial) and health facilities (hospitals, Long Term Care, etc.).
MSHDA	$0	$249,900	
Health & Human Services	$600,000	$600,000	Follow-up on children with elevated blood levels
Environmental Quality	$300,000	$300,000	Home and school inspections.
Subtotal Additional Support:	**$900,000**	**$1,349,900**	
ALL TOTAL	**$7,916,000**	**$10,365,900**	

FLINT SCHOOL TESTING RESULTS:

WHAT DID WE FIND?

1) The results of the initial screening conducted over the course of the last week are consistent with the last round of community lead and copper testing.

2) There were a total of 37 samples taken from 13 schools. Of those 37 samples, 4 exceeded the 15 ppb action level. There were 3 schools that had samples exceeding the action level: Eisenhower Elementary (which had two samples exceeding 15 ppb). Brownell STEM Academy and Freeman Elementary each had one sample exceeding 15 PPB. The sample from Freeman Academy was significantly higher than the other samples at 101 PPB.

3) Looking at the data from a health based perspective, the data clearly demonstrates that more detailed sampling needs to occur so that the various sources of lead contamination contained within each respective school's plumbing can be identified and addressed.

WHAT DOES THE DATA MEAN?

1) The data underscores the need for a complete and thorough evaluation of the plumbing system within each school.

2) We have developed a protocol for evaluating the plumbing systems and we will be working with schools to implement these protocols and to assist them in determining a corrective action plan to address this issue.

3) The State is identifying staff within DEQ, DHHS, LARA and Local County Health Departments to assist schools in conducting evaluations of their plumbing systems.

WHAT IS YOUR PROTOCOL?

1) DEQ's protocols are based on similar work done in Michigan and in other States.

2) Multiple samples from each tap used for cooking or drinking water will be collected at prescribed intervals to identify levels of lead and its likely source.

3) Once an evaluation is complete, we will be able to assist each School in developing a comprehensive plan to address issues on a site specific basis.

HOW DO SCHOOLS RESPOND?

1) Schools should continue protective measures that are currently in place until a complete study can be conducted at each school. This includes the continued use of bottled water for consumption purposes.

2) We will be reaching out to schools to schedule a complete evaluation, assessment and sampling, of their plumbing systems.

Drinking Water Regulations for Monitoring of Lead in Schools and Child Care Centers

There is no federal or Michigan law requiring sampling of drinking water in schools that receive water from other public water systems, although schools that have their own water supply are subject to regulation and sampling as non-community public water systems. Schools served by a public water system may be included as a sampling site (i.e., tap) for a public water system's lead and copper monitoring program if there are insufficient single-family homes that qualify. There are no federal requirements for more extensive testing.

The 1986 Amendments to the Safe Drinking Water Act (SDWA) required EPA to develop regulations to control for lead in drinking water. The Lead and Copper Rule (LCR), issued in 1991, is focused on controlling corrosion within the distribution system that delivers water to customers. The 1986 SDWA Amendments also required that only lead-free materials be used in new plumbing and in plumbing repairs.

In 1988, the SDWA was further amended by the Lead Contamination Control Act (LCCA), to reduce the exposure of lead to children in schools and child care facilities. The LCCA prohibited the sale of any drinking water cooler that is not lead-free and required that:
• the EPA identify each brand and model of drinking water cooler, indicating which are lead free and which have a lead-lined tank and distribute the list to states (SDWA Sec. 1463),
• the Consumer Product Safety Commission order that manufacturers and importers of all drinking water coolers identified as having a lead-lined tank repair, replace, or recall and provide a refund for such coolers (SDWA Sec. 1462),
• the EPA publish a guidance document and testing protocol to assist states in determining the source and degree of lead contamination in school drinking water (SDWA Sec. 1464), and
• states establish programs to assist schools and child care facilities to test for and remedy lead contamination problems, with public availability of results of such testing (SDWA Sec. 1464(d)).

As a result of a 1996 court decision, States are not required to establish testing programs. In its decision, the Fifth Circuit held that provisions in section 1464(d) were unconstitutional under the Tenth Amendment to the U.S. Constitution because they directly compelled the state to enact and enforce a federal regulatory program and provided no options for the State to decline the program. The decision did not, however, restrict states from developing and carrying out their own programs to assist schools.

In 1989 and subsequent years, EPA released guidance and information to inform states and school systems how to test for and reduce the risk of lead exposure in school drinking water. EPA's guidance provides a protocol for testing water in schools and recommends that schools take action at fixtures where the lead concentration exceeds 20 ppb. This concentration differs from the 15 ppb action level that public water systems are required to follow. ***The 20 ppb action level is based on a smaller sample collection volume of 250 milliliters (ml) and is designed to pinpoint specific fountains and outlets that require attention.***

In 1990, Michigan did provide schools and licensed child care centers with information to assist in testing and remedying potential lead contamination of their drinking water as required by the Lead Contamination Control Act of 1988. This information included a sampling protocol and guidance on flushing their system to minimize lead exposure.

In 2004, EPA surveyed states to determine what additional programs may exist to control exposure to lead in drinking water at schools and child care centers. Forty-nine states, Puerto Rico, the District of Columbia and the Navajo Nation responded. Only 16 respondents indicated they have or will conduct special sampling or studies to target lead exposure at schools and child care centers. Michigan has not included any additional sampling programs or studies. However, some local agencies have conducted voluntary programs. For example, the W.K. Kellogg Foundation funded a program implemented by the Calhoun County Health Department that sampled schools in Battle Creek. In Michigan's response to this EPA survey, we included a recommendation for EPA to allow schools to be considered as a primary LCR monitoring site so that more information about lead levels in schools would become available. However, no changes in sampling criteria have occurred to date.

In 2005, a Memorandum of Understanding was signed between the EPA, the Department of Education, the Centers for Disease Control and Prevention (CDC), the American Water Works Association, the Association of Metropolitan Water Agencies, the Association of State Drinking Water Administrators, the National Association of Water Companies and the National Rural Water Association to facilitate actions that reduce children's exposure to lead from drinking water at schools and child care facilities.

Across the country and in Michigan, most schools and child care facilities receive water from other community water systems. However, those schools that have their own source of drinking water are considered non-transient non-community water systems and are subject to the LCR. In Michigan, there are 755 such schools and child care centers that must monitor for lead to demonstrate compliance.

Response to Corrosion Control Questions

- Lime Softening can affect the pH in water
- The pH of the water is one physical characteristic that can affect the leaching of lead from pipes into the water
- As per the requirements in the Lead/Copper rule the Flint Water system was evaluated for two consecutive monitoring periods and the results of the monitoring demonstrated that further action was necessary.
- The DEQ promptly notified the Flint water system of the need for additional measures and the city of Flint promptly began putting together an action plan to address this need.

From: Sygo, Jim (DEQ)
Sent: Wednesday, October 07, 2015 6:00 PM
Subject: Fwd: TAC Meeting Highlights

Summary of advisory committee meeting

Sent from my iPhone

Begin forwarded message:

> **From:** "Prysby, Mike (DEQ)" <PRYSBYM@michigan.gov>
> **Date:** October 7, 2015 at 4:56:44 PM EDT
> **To:** "Sygo, Jim (DEQ)" <SygoJ@michigan.gov>
> **Subject: TAC Meeting Highlights**
>
> Below is a summary of the Flint TAC meeting to obtain the committee's endorsement to switch back to Detroit water.
> 1. The TAC endorses the switch back to the DWSD
> 2. Marc Edwards of VA Tech supports the switchover to DWSD with conclusion that Flint River water with corrosion control will still be 4 times more corrosive
> than water from DWSD after 5 weeks of treatment.
> 3. Genesee County states two weeks to prepare pipeline for re-use (flush, disinfect, sample, etc)
> 4. Supplemental corrosion control still needed with DWSD water and ACT 399 submittal can be made in approx one week.
> 5. No pros were brought to the table for staying on the Flint River.
>
> Sent from my iPhone

City of Flint, Michigan

Third Floor, City Hall
1101 S. Saginaw Street
Flint, Michigan 48502
www.cityofflint.com

Meeting Minutes - Draft

Monday, March 25, 2013

5:33 PM

Agenda amended to include Board of Hospital Managers appointments

Council Chambers

CITY COUNCIL

Scott Kincaid, President, Ward 9
Bryant W. Nolden, Vice President, Ward 3

Claudia Croom, Ward 1 ***Jacqueline Poplar, Ward 2***
Joshua M. Freeman, Ward 4 ***Bernard Lawler, Ward 5***
Sheldon A. Neeley, Ward 6 ***Dale K. Weighill, Ward 7***
Michael J. Sarginson, Ward 8

Inez M. Brown, City Clerk

CALL TO ORDER

President Scott Kincaid called the meeting to order at 5:33 p.m.

ROLL CALL

Councilperson Michael Sarginson arrived at 5:37 p.m.

Present: Councilperson: Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, Kincaid, Councilperson Weighill and Councilperson Croom

PLEDGE OF ALLEGIANCE

Councilperson Sheldon Neeley led the Pledge of Allegiance.

SPECIAL ORDER

130217 Special Order/Information & Discussion/Karegnondi Water Authority (KWA)

A Special Order as requested by Council President Scott Kincaid to continue discussion and review of information on the Karegnondi Water Authority (KWA).

Presented

PETITIONS AND UNOFFICIAL COMMUNICATIONS

130193 Change to Digital/All Limited Basic Service Channels/Comcast Cablevision

Communication dated March 6, 2013, from Gerald W. Smith, Government Affairs Manager, Comcast, to Flint City Clerk, re: On or shortly after April 9, 2013, Comcast will convert all Limited Basic service channels -- including Public, Government and Educational Access (PEG) channels to digital format, and will provide customers with digital equipment.

This matter was Placed on File. The motion carried.

130199 Certified Letter/Loyst Fletcher, Jr. & Associates

Communication received from Loyst Fletcher, Jr. to Chief Legal Officer, re: He questions the tax-exempt status of Word of Life Christian Church, which received a tax bill from the city.

This matter was Placed on File. The motion carried.

130200 Local Approval Notice/Michigan Liquor Control Commission (MLCC)/Time Square/Ward 3

Local Approval Notice dated March 14, 2013, from MLCC to Flint City Clerk, re: The MLCC has received a request to transfer all stock in 2012 Class C license with Sunday Sales Permit (PM) and Dance Permit, located at 4522 N. Saginaw,

Flint, Michigan, 48505, Genesee County, held by the estate of Myra Seals, Inc., 1028 Cora Dr., Flint, MI 48532, to Carisa Mays Bishop, Personal Representative. [NOTE: Approval order enclosed.]

This matter was Placed on File. The motion carried.

130202 Local Approval Notice/Michigan Liquor Control Commission (MLCC)/D & R Market, Inc./Ward 6

Local Approval Notice dated March 6, 2013, and received March 15, 2013, from MLCC to Flint City Clerk, re: The MLCC has received an application from 2 AAR, LLC, requesting to Transfer Ownership of a Specially Designated Distributor (SDD) and Specially Designated Merchant (SDM) licensed business with Sunday Sales permit (PM) and Direct Connection-I to D & R Market, Inc., located at 1402-1404 N. Chevrolet, Flint, Michigan, 48504, Genesee County, from 2 AAR, LLC, 3079 Shattuck Arms Blvd., Apt. 5, Saginaw, MI 48603. [NOTE: The application was cancelled pursuant to a request from an attorney.]

This matter was Placed on File. The motion carried.

130204 Changes/Cable Channel Lineup/Comcast Cablevision

Communication dated March 18, 2013, from Gerald W. Smith, Government Affairs Manager, Comcast, to Flint City Clerk, re: effective on or about May 22, 2013, Fox Business Network/Fox Business Network HD (ch. 06/243) will from the Digital Preferred Service to the Digital Starter Service.

This matter was Placed on File. The motion carried.

130205 Media Alert/Flint Public Art Project/Announcement of Design Winner

Media Alert received via e-mail on March 19, 2013, from the American Institute of Architects (AIA), re: The Flint Public Art Project and the Flint Chapter of the AIA will announce the winner of the $25,000.00 grand prize in the inaugural Flat Lot competition to design and build a temporary summer pavilion on Flint's central downtown parking lot at 9:30 a.m. Thursday, March 21, 2013, at the John Gazall & Associates, Mott Building, 503 S. Saginaw Street, Flint.

This matter was Placed on File. The motion carried.

130207 Damage Claims

MAYFIELD, LINDA, 2518 Walter Street, Flint, MI (WARD 2)
LANE, WILLIE C., 3130 Concord Street, Flint, MI (WARD 6)

This matter was Placed on File. The motion carried.

COMMUNICATIONS FROM CITY OFFICIALS

130194 Press Release/City of Flint/Hiring of New Police Officers/Recruitment of Others

Press Release dated March 11, 2013, from Jason Lorenz, City of Flint Public

Information Officer, re: The City of Flint has seven new police officers on the job from the public safety millage passed last November by voters. The city's next step is to hold a recruitment drive by working with a local college, which will set up a Police Academy when the city has gathered sufficient interest from its efforts.

This matter was Placed on File. The motion carried.

130195 Press Release/City of Flint/Sunday Sales of Alcohol Before Noon Not Permitted on St. Patrick's Day

Press Release dated March 12, 2013, from Jason Lorenz, City of Flint Public Information Officer, re: The City of Flint will not be able to permit Sunday alcohol sales before noon this Sunday, March 17, St. Patrick's Day. While the city adopted a resolution to allow a one-time exception to the Sunday morning alcohol ban, the Michigan Liquor Control Commission has taken the position that the city cannot create a one-day exemption.

This matter was Placed on File. The motion carried.

130196 Flint City Council/Public Notice/Special City Council Meeting/March 18, 2013

Public Notice posted March 14, 2013, re: The Flint City Council will hold a Special City Council Meeting, followed by a Finance Committee Meeting, at 5:30 p.m. Monday, March 18, 2013, in the City Council Chambers, 3rd Floor, City Hall, to consider a contract with the Karegnondi Water Authority (KWA).

This matter was Placed on File. The motion carried.

130201 Emergency Financial Manager (EFM) Order #10/Grant Applications

Order #10 issued by Emergency Financial Manager on March 15, 2013, "Grant Applications," re: "all city officials, department heads, division heads and employees shall adhere to ...requirements regarding the approval of any and all grant applications on behalf of the City of Flint or grant applications submitted by others which in any way involves the financial, programmatic or personnel support by the City of Flint." The five requirements, including the stipulation that only the Emergency Financial Manager or City Administrator are authorized to accept grants on behalf of the city, are included in the order.

This matter was Placed on File. The motion carried.

130203 Press Release/City of Flint/Flint Lifelines/Meeting Announcement

Press Release dated March 16, 2013, from Jason Lorenz, City of Flint Public Information Officer, re: Flint Lifelines, formerly CeaseFire Flint, will hold community meetings on the fourth Thursday of each month, beginning at 1 p.m. Thursday, March 28, 2013 at Flint Northwestern High School. The meetings are open to the public.

This matter was Placed on File. The motion carried.

130206 Flint City Council/Public Notice/Finance Committee Meeting/March 20, 2013

Public Notice posted March 19, 2013, re: The Flint City Council will hold a Finance Committee Meeting at 5:30 p.m. Wednesday, March 20, 2013, in the City Council Committee Room, 3rd Floor, City Hall.

This matter was Placed on File. The motion carried.

130208 Flint City Council/Public Notice/Special Affairs Committee Meeting/March 25, 2013

Public Notice posted March 22, 2013, re: The Flint City Council will hold a Special Affairs Committee Meeting at 5 p.m. Monday, March 25, 2013, in the City Council Committee Room, 3rd Floor, City Hall. A regular City Council meeting will immediately follow in the Council Chambers.

This matter was Placed on File. The motion carried.

130209 Traffic Engineering/Note for Bulletin/Street-Sidewalk-Lane Closures

Notes for Bulletin (3) dated February/March 2013, for street, sidewalk, or lane closures, re: (1) Harrison Street, Saginaw Street and Second Avenue (cable failure-March 11-March 20); (2) First Street, Harrison Street, Wallenberg, Kearsley, Crapo, Horrigan, and Harrison (St. Patrick's Day Pot O' Gold 4-Mil Run/Walk-March 17); and (3) Chevrolet Avenue (University Corner Grand Opening-March 22).

This matter was Placed on File. The motion carried.

Passed The Consent Agenda

A motion was made. The motion carried.

PUBLIC SPEAKERS

ROLL CALL

Councilperson Dale Weighill left at approximately 7 p.m.

Present: Councilperson: Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, Kincaid and Councilperson Croom

Absent: Councilperson: Councilperson Weighill

APPOINTMENTS

130169.1 Amendment/Reappointment/Zoning Board of Appeals/Christine Monk (Ward 6)

Amended resolution resolving that the Flint City Council recommends the reappointment of Christine Monk (821 Frank Street, Flint MI 48504 - Ward 6), to the Zoning Board of Appeals for a three-year term, commencing September

1, 2011, and expiring September 1, 2014. [By way of background, Ms. Monk's term on the Zoning Board of Appeals expired in September 2011, but she has continued since that time to serve.] [Resolution amended to fix typographical error in first paragraph of resolution from "Board of Review" to "Zoning Board of Appeals."]

Sponsors: Sheldon A. Neeley

A motion was made by Councilperson Neeley, seconded by Councilperson Freeman, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130211 Appointment/Zoning Board of Appeals/Chris Zuwala (Ward 4)

Resolution resolving that the Flint City Council recommends the appointment of Chris Zuwala (3510 Whittier Avenue, Flint MI 48506 - Ward 4) to the Zoning Board of Appeals for a three-year term, expiring September 1, 2013. [NOTE: By way of background, Gloria Kelly's term as the 4th Ward representative expired in September 2007, but she continued to serve until resigning in January 2013.]

Sponsors: Joshua M. Freeman

A motion was made by Councilperson Freeman, seconded by Councilperson Poplar, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130212 Reappointment/Zoning Board of Appeals/Birdie V. Brooks (Ward 5)

Resolution resolving that the Flint City Council recommends the reappointment of Birdie V. Brooks (1307 Columbia Lane, Flint MI 48503 - Ward 5), to the Zoning Board of Appeals for the remainder of a three-year term, expiring September 1, 2014. [By way of background, Ms. Brook's term on the Zoning Board of Appeals expired in September 2011, but she has continued since that time to serve.]

Sponsors: Bernard Lawler

A motion was made by Councilperson Lawler, seconded by Councilperson Neeley, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130213

Resolution resolving that the Flint City Council recommends the reappointment of Marcia Braden (984 Barney Avenue, Flint MI 48503 - Ward 8), to the Zoning Board of Appeals for the remainder of a three-year term, expiring September 1, 2014. [By way of background, Ms. Braden's term on the Zoning Board of Appeals expired in September 2011, but she has continued since that time to serve.]

Sponsors: Michael J. Sarginson

A motion was made by Councilperson Sarginson, seconded by Councilperson Freeman, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130214 Reappointment/Zoning Board of Appeals/David C. Veasley (Ward 9)

Resolution resolving that the Flint City Council recommends the reappointment of David C. Veasley (2618 Pinetree Drive, Flint MI 48507 - Ward 9), to the Zoning Board of Appeals for the remainder of a three-year term, expiring September 1, 2015. [By way of background, Mr. Veasley's term on the Zoning Board of Appeals expired in September 2009, but he has continued since that time to serve.]

Sponsors: Scott Kincaid

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130215 Appointment/Genesee County Land Bank Citizens' Advisory Council/Anthony Tucker (Ward 4)

Resolution resolving that the Flint City Council recommends the appointment of Anthony Tucker (2960 Henry Street, Flint MI 48506 - Ward 4) to the Genesee County Land Bank Citizens' Advisory Council for the remainder of a three-year term, expiring in January 2016. [NOTE: By way of background, Dan Anderson's term as the 4th Ward representative expired in January 2013.]

Sponsors: Joshua M. Freeman

A motion was made by Councilperson Freeman, seconded by Councilperson Poplar, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130218 Reappointment/Hurley Board of Hospital Managers/Philip W. Shaltz

Resolution resolving that the Flint City Council approves the reappointment of Philip W. Shaltz (14144 Moffet Drive, Fenton, MI 48430) to an additional five-year term on the (Hurley) Board of Hospital Managers, with such term to commence May 1, 2013, and expire April 30, 2018.

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130219 Appointment/Hurley Board of Hospital Managers/Delrico Loyd

Resolution resolving that the Flint City Council approves the appointment of Delrico Loyd (2641 Westwood Parkway, Flint, MI 48507) to a five-year term on the (Hurley) Board of Hospital Managers, with such term to commence May 1, 2013, and expire April 30, 2018. [By way of background, Carl E. Mason was appointed in June 2008; his term expires April 30, 2013.]

Approved

Substituted

A motion was made by Councilperson Neeley, seconded by Councilperson Lawler, that this matter be POSTPONED for March 27, 2013. The motion failed by the following vote:

Aye: 3 - Councilperson Lawler, Councilperson Neeley and Councilperson Sarginson

No: 5 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

Substituted

A motion was made by Vice President Nolden, seconded by Councilperson Freeman, that this matter be Approved. The motion carried by the following vote:

Aye: 5 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, President Kincaid and Councilperson Croom

No: 3 - Councilperson Lawler, Councilperson Neeley and Councilperson Sarginson

Absent: 1 - Councilperson Weighill

130220 Appointment/Hurley Board of Hospital Managers/Donna Poplar

Resolution resolving that the Flint City Council approves the appointment of Donna Poplar (5277 Kimberly Woods Circle, Flint, MI 48504) to a five-year term

on the (Hurley) Board of Hospital Managers, with such term to commence May 1, 2013, and expire April 30, 2018. [By way of background, Frances Gilcreast was appointed in August 2008; her term expires April 30, 2013.]

Approved

Substituted

A motion was made by Councilperson Lawler, seconded by Councilperson Neeley, that this matter be POSTPONED for March 26, 2013. The motion carried by the following vote:

Aye: 7 - Councilperson Poplar, Vice President Nolden, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

No: 1 - Councilperson Freeman

Absent: 1 - Councilperson Weighill

RESOLUTIONS

130165.1 Amended Resolution/Contract/City of Flint/Karegnondi Water Authority (KWA)

Amended resolution resolving that city officials are authorized to enter into a contract with Karegnondi Water Authority (KWA) to purchase fifteen (15) units of capacity, AND, resolving that the City Administrator is authorized to provide KWA information needed to administer the contract, and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract. [NOTE: For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one-time fee of $32,300. Additionally, the buyer shall pay to the KWA not less than $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount NOT-TO-EXCEED $355,300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00, the buyer has a right to cancel the contract. Over the next 25 years, it is expected that continuing with Detroit will cost the region $2.1 billion, compared to $1.9 billion with a pipeline.] [NOTE: Contract not included.] [NOTE: Resolution amended from 18 to 15 units of capacity.]

A motion was made by Councilperson Neeley, seconded by Councilperson Freeman, that this matter be Amended. The motion carried by the following vote:

Aye: 5 - Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley and Councilperson Sarginson

No: 3 - Councilperson Poplar, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130165.2 Amended Resolution/Contract/City of Flint/Karegnondi Water Authority (KWA)

Amended resolution resolving that city officials are authorized to enter into a contract with Karegnondi Water Authority (KWA) to purchase sixteen (16) units

of capacity, AND, resolving that the City Administrator is authorized to provide KWA information needed to administer the contract, and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract. [NOTE: For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one-time fee of $32,300. Additionally, the buyer shall pay to the KWA not less than $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount NOT-TO-EXCEED $355,300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00, the buyer has a right to cancel the contract. Over the next 25 years, it is expected that continuing with Detroit will cost the region $2.1 billion, compared to $1.9 billion with a pipeline.] [NOTE: Contract not included.] [NOTE: Resolution amended from 15 to 16 units of capacity.]

A motion was made by Councilperson Neeley, seconded by Councilperson Freeman, that this matter be Adopted. The motion carried by the following vote:

Aye: 7 - Councilperson Poplar, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

No: 1 - Vice President Nolden

Absent: 1 - Councilperson Weighill

130216 Approval/The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint

Resolution that the City of Flint hereby approves and The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint, attached hereto. [NOTE: The City of Flint created the DDA, in accordance with Public Act 197 of 1975, as amended, and approved The Rules Governing the DDA in 1977. Public Act 197 has been amended and revised at various times since then, which required the proposed changes.] [NOTE: The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint is attached.]

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Amended. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130216.1 Amended Resolution/Approval/The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint

Amended resolution that the City of Flint hereby approves and The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint, attached hereto. [NOTE: The City of Flint created the DDA, in accordance with Public Act 197 of 1975, as amended, and approved The Rules Governing the DDA in 1977. Public Act 197 has been

amended and revised at various times since then, which required the proposed changes.] [NOTE: The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint is attached.] [Resolution amended for changes to rules.]

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Adopted. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

RESOLUTIONS - MAY BE REFERRED FROM S.A.

130210 Resolution/City Council/Mayor Dayne Walling/Request for Appointment of Transition Advisory Board

Resolution resolving that Mayor Dayne Walling and the Flint City Council request and recommend to Gov. Rick Snyder that a receivership transition advisory board be appointed for the City of Flint under Public Act 436 no later than July 1, 2013. [NOTE: On December 1, 2011, Gov. Snyder appointed Michael K. Brown as Emergency Manager under Public Act 4 for the City of Flint, due in part to a consistent deficit in the general fund, the decline in pooled cash, budget issues and unfunded liabilities for post-employment benefits. Due to the suspension and subsequent repeal of Public Act 4, Gov. Snyder appointed Edward J. Kurtz as Emergency Financial Manager under Public Act 72 for the City of Flint, effective August 9, 2012. Both the Emergency Manager and the subsequently appointed Emergency Financial Manager were authorized by virtue of their appointment to "act for and in the place and stead of the governing body and the office of chief administrative officer of the City of Flint." On March 28, 2013, Public Act 436 will become effective and provides that an emergency financial manager appointed and serving under state law immediately prior to the effective date shall continue to serve as an emergency manager under Public Act 436. As an alternative to continuation of an emergency manager, and if the financial emergency has been rectified, Public Act 436 authorizes the governor to appoint a receivership transition advisory board, which serves at the pleasure of the governor and monitors the affairs of the local government until the receivership is terminated.]

No vote was taken on this amendment.

Amended

130210.1 Amended Resolution/City Council/Mayor Dayne Walling/Request for Appointment of Transition Advisory Board

Amended resolution resolving that Mayor Dayne Walling and the Flint City Council request and recommend to Gov. Rick Snyder that a receivership transition advisory board be appointed for the City of Flint under Public Act 436 no later than July 1, 2013. [NOTE: On December 1, 2011, Gov. Snyder appointed Michael K. Brown as Emergency Manager under Public Act 4 for the

City of Flint, due in part to a consistent deficit in the general fund, the decline in pooled cash, budget issues and unfunded liabilities for post-employment benefits. Due to the suspension and subsequent repeal of Public Act 4, Gov. Snyder appointed Edward J. Kurtz as Emergency Financial Manager under Public Act 72 for the City of Flint, effective August 9, 2012. Both the Emergency Manager and the subsequently appointed Emergency Financial Manager were authorized by virtue of their appointment to "act for and in the place and stead of the governing body and the office of chief administrative officer of the City of Flint." On March 28, 2013, Public Act 436 will become effective and provides that an emergency financial manager appointed and serving under state law immediately prior to the effective date shall continue to serve as an emergency manager under Public Act 436. As an alternative to continuation of an emergency manager, and if the financial emergency has been rectified, Public Act 436 authorizes the governor to appoint a receivership transition advisory board, which serves at the pleasure of the governor and monitors the affairs of the local government until the receivership is terminated.] [Six-page resolution amended for changes proposed by City Council, City Clerk and Mayor Dayne Walling.]

A motion was made by Councilperson Freeman, seconded by Councilperson Poplar, that this matter be Adopted. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

MEETING SCHEDULE

ADDITIONAL COUNCIL DISCUSSION

ADJOURNMENT

Having no further business, Council President Scott Kincaid adjourned the meeting at 8:59 p.m.

Respectfully transcribed and submitted,

Janell Johnson. Administrative Secretary to City Council

EM SUBMISSION NO.: 2013EM041

PRESENTED: 3-28-13

ADOPTED: 3-29-13

BY THE EMERGENCY MANAGER:

RESOLUTION TO PURCHASE CAPACITY FROM KAREGNONDI WATER AUTHORITY

The Karegnondi Water Authority (KWA) is a governmental consortium of cities and counties in southeastern Michigan that was created to build a water pipeline that will provide water from Lake Huron to interested communities in Sanilac, Lapeer, and Genesee counties. The incorporating bodies that created the KWA are Sanilac County, Lapeer County, Genesee County, the City of Flint, and the City of Lapeer.

The City of Flint is currently in a year to year contract with the City of Detroit for the purchase of water. A study was conducted that projected that staying with Detroit will cost the region $2.1 billion over the next 25 years. In contrast, if the region builds its own pipeline, the projected costs are $1.9 billion over the same period. After the initial 25 year period, the projected costs would be less then 25% of the projected water costs from Detroit.

In order to build the pipeline, the KWA needs commitment from its members regarding the capacity that each member will purchase in the pipeline. The KWA is allowed to withdraw 85 million gallons of water per day. Capacity is available to members in increments of 1 million gallons per day known as units. For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one time fee of $32,300.00. Additionally, the buyer shall pay to the KWA not less then $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount not to exceed $355.300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00 the buyer has a right to cancel the contract.

The purchase of capacity along with the payment of other costs necessary to operate the pipeline gives the member a right to water for sale to its customers. The buyer has a right to resell capacity and water rights. Each party entering into a capacity contract shall also be entitled to appoint additional board members equal to the party's percentage share of the total capacity under contract.

It is in the long term best interests of the City of Flint to enter into a contract with the KWA to purchase up to eighteen (18) units of capacity.

IT IS RESOLVED that City officials are authorized to enter into a contract with KWA to purchase up to eighteen (18) units of capacity.

IT IS FURTHER RESOLVED that the City Administrator is authorized to provide KWA information needed to administer the contract and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract.

APPROVED AS TO FORM:

Peter M. Bade, City Attorney

APPROVED AS TO FINANCE:

For **Gerald Ambrose, Finance Director**

EM DISPOSITION:

ENACT 1/ **FAIL** _____ **DATED** 3-29-13

Edward L. Kurtz, Emergency Manager

S:\P. Bade\EM2013\Resolutions\KWA.03.28.13.doc

Flint

Flint City Council approves resolution to buy water from Karegnondi, state approval still needed

[http://connect.mlive.com/staff/dadams1/index.html] By Dominic Adams | dadams5@mlive.com [http://connect.mlive.com/staff/dadams1/posts.html]
Follow on Twitter [http://www.twitter.com/dominicadams]
on March 25, 2013 at 10:45 PM, updated March 26, 2013 at 1:28 AM

FLINT, MI – Flint is one step closer to getting its water from Lake Huron as part of the Karegnondi Water Authority.

The vote, **approved 7-1 at the Flint City Council meeting Monday, March 25 [http://www.mlive.com/news/flint/index.ssf/2013/03/flint_city_council_again_delay.html]** , may have set in motion the end to Flint paying to get its water from Detroit.

Under the proposal, Flint would get 16 million gallons per day of raw water from Lake Huron, pipe it to Flint for treatment and then sell it to customers throughout the city. Another 2 million gallons per day would come from the Flint River and will be treated in Flint.

Mayor Dayne Walling said the Department of Environmental Quality must approve Flint's getting 2 million gallons per day from the Flint River.

Tuesday's meeting followed weeks of discussions and special meetings surrounding the resolution.

"We got there," Councilman Joshua Freeman said. "That's the important thing."

There were more than 50 people at Monday's meeting.

"Going with Karegnondi is the best decision. We have no opinion on the economics of the decision," said Rebecca Fedewa, Flint River Watershed Coalition executive director. "If we start drawing water out of the Flint River, we are at risk of having to start releasing water from our reservoirs."

Genesee County Drain Commissioner Jeff Wright said the decision must still be approved by a county water and waste advisory board. The KWA board will then be reconvened for final approval.

Wright said construction could start in May.

State treasury officials still must approve the city council's move because Flint has an emergency financial manager. All expenditures over $50,000 must be approved.

Genesee County Drain Commissioner Jeff Wright has said that Flint would pay roughly $6.4 million annually for water service if it joined the pipeline – a nearly $4 million savings on what it pays Detroit for water.

Walling previously said the **city would save $19 million over eight years [http://www.mlive.com/news/flint/index.ssf/2013/03/flint_city_council_delays_deci.html]** by getting water from the KWA.

"It's a historic night in the City of Flint," Walling said. "The savings will be less with the capacity level approved by city council because there will be increased treatment cost for the river water."

He said the DEQ told the city it needed to get 18 million gallons per day or there would have to be additional work done at Flint's water plant.

Flint's water plant and the Flint River is currently the backup for Flint and Genesee County, however, the plant only operates four times per year.

Councilman Bryant Nolden was the lone dissenting vote.

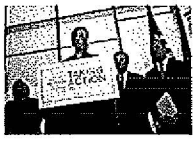
"It was a protest vote," Nolden said. "I knew they had enough votes. I just feel like the Flint River is our best option."

Karengnondi is the regional water authority that includes Genesee, Lapeer and Sanilac counties and the cities of Flint and Lapeer.

Flint is the second municipality, behind Genesee County, to officially decide to purchase raw water through the KWA. Lapeer city officials said they intend to purchase water, but an agreement has been finalized.

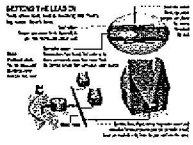
Dominic Adams is a reporter for MLive-Flint Journal. Contact him at ***dadams5@mlive.com*** *or 810-241-8803. Follow him on* ***Twitter [http://www.twitter.com/dominicadams]*** *,* ***Facebook [http://www.facebook.com/dominic.adams.1865]*** *or* ***Google+ [https://plus.google.com/103690672506808729911?rel=author]*** *.*

Related Stories



Price of Detroit water for Flint is $1.5 million a month, mayor says

[http://www.mlive.com/news/flint/index.ssf/2015/10/mayor_city_ad



Here's how that toxic lead gets into Flint water

[http://www.mlive.com/news/flint/index.ssf/2015/10/see_step_by_s

Registration on or use of this site constitutes acceptance of our User Agreement and Privacy Policy

© 2015 MLive Media Group All rights reserved (About Us).
The material on this site may not be reproduced, distributed, transmitted, cached or otherwise used, except with the prior written permission of MLive Media Group

Community Rules apply to all content you upload or otherwise submit to this site. Contact Interactivity management.

▷ Ad Choices

GENESEE COUNTY DRAIN COMMISSIONER'S OFFICE
JEFFREY WRIGHT
COMMISSIONER
G-4608 BEECHER ROAD, FLINT, MI 48532
PHONE (810) 732-1590 FAX (810) 732-1474

FOR IMMEDIATE RELEASE

CONTACT: Jeff Wright

March 26, 2013

810-287-1925

What: Jeff Wright Statement on Flint City Council Approving Resolution to Join KWA.

When: March 26, 2013

Additional Info: Jeff Wright, CEO of the KWA, today praised the Flint City Council for voting to approve a resolution to officially have the City of Flint join the KWA and its' water line.

"I have said from the beginning that this decision must be made by Flint's City Council and Mayor," said Wright. "I appreciate the council voting the way they did, but even more than that, I am glad the residents of Flint were able to have their voices heard via their elected officials." The next step in the process will come with the KWA Board executing the contract for the City.

"The most important aspect from the vote is the fact that we as an Authority can move forward knowing Flint's intentions," said Wright.

Despite Emergency Manager Ed Kurtz publicly supporting the project, Wright had made a vote by council a condition of Flint joining the KWA so the residents would have their say.

"There is a basic tenet that government is best when it has local control. We saw that with the council vote. Nobody, whether they live in Flint, Grand Blanc, Davison, Fenton, or anywhere in Genesee County, should have these types of decisions made by people who live outside of their community," said Wright.

At the next Water and Waste Advisory Board meeting a vote will be taken to award a contract for construction of the intake portion of the water line. All bids were submitted to the board at their last meeting for review.

89 (Rev. 02-11)

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

ANDY DILLON
STATE TREASURER

April 11, 2013

Mr. Edward Kurtz
Emergency Manager
City of Flint
1101 South Saginaw Street
Flint, MI 48502

Dear Mr. Kurtz:

Thank you for your March 29, 2013 letter, which is attached for reference. As the Emergency Manager for the City of Flint ("Flint" or "City"), you have asked for my concurrence, pursuant to Public Act 436 of 2012, the Local Financial Stability and Choice Act, to authorize a contract in excess of $50,000.00 not subject to competitive bidding. This request was related to the City entering into an agreement with the Karegnondi Water Authority (KWA) for provision of raw water for the City.

In considering your request, I took note of the following facts in support of Flint joining KWA. First, there is widespread support in the City for this move, including the support of the Mayor, the City Council, and the Emergency Manager. Second, this move will provide a unique opportunity for the City and County to partner on an important project, which will hopefully lead to future regional collaboration. Third, the Department of Environmental Quality is supportive of the City participating in the KWA project. Finally, your representations that this deal will lead to substantial savings for the City over the coming decades, savings that are desperately needed to help with the turnaround of the City of Flint.

It is my understanding that the Detroit Water and Sewer Department is making a final best offer to Genesee County and the City of Flint next Monday, April 15, 2013. As such, this approval will be effective at 5 pm on April 16, 2013 after receiving written notice from the City that either no such offer was presented to the county and the City or that an offer was received and was rejected in good faith based upon specified objections.

For the reasons described above and subject to the conditions set forth herein, pursuant to Section 12 (3) of PA 436 of 2012, I am authorizing you to proceed with adopting the resolution and entering into a contract with KWA.

Sincerely,

Andy Dillon
State Treasurer

Flint

Flint council supports buying water from Lake Huron through KWA

[http://connect.mlive.com/staff/dadams1/index.html] By Dominic Adams | dadams5@mlive.com [http://connect.mlive.com/staff/dadams1/posts.html]
Follow on Twitter [http://www.twitter.com/dominicadams]
on March 25, 2013 at 7:17 PM, updated March 26, 2013 at 7:43 AM

FLINT, MI -- Flint residents may soon get their water from Lake Huron.

The Flint City Council voted 7-1 to get 16 million gallons per day from the Karegnondi Water Authority.

"This is about compromise," said Councilman Sheldon Neeley.

Neeley got support from Councilman Joshua Freeman, after the two were previously at odds about the amount the city should withdraw from Lake Huron.

Councilman Bryant Nolden was the lone "no" vote.

"It was a protest vote," Nolden said. "I just feel like the Flint River is our best option."

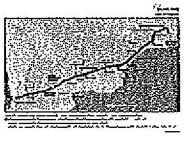
Genesee County Drain Commissioner said construction of the pipeline could start in May.

The city currently pays to get its water from Detroit.

State treasury officials still must approve the city council's move because Flint has an emergency financial manager. All expenditures over $50,000 must be approved.

*Dominic Adams is a reporter for MLive-Flint Journal. Contact him at **dadams5@mlive.com** or 810-241-8803. Follow him on **Twitter [http://www.twitter.com/dominicadams]** , **Facebook [http://www.facebook.com/dominic.adams.1865]** or **Google+ [https://plus.google.com/103690672506808729911?rel=author]** .*

Related Stories



Enbridge can begin piping tar sands oil along Lake Ontario north shore

[http://www.mlive.com/news/index.ssf/2015/10/enbridge_can_beg

Former Detroit American Motors Corp. headquarters being auctioned; starting bid $500

[http://www.mlive.com/news/detroit/index.ssf/2015/10/former_detr

Registration on or use of this site constitutes acceptance of our User Agreement and Privacy Policy

© 2015 MLive Media Group All rights reserved (About Us).
The material on this site may not be reproduced, distributed, transmitted, cached or otherwise used, except with the prior written permission of MLive Media Group

Community Rules apply to all content you upload or otherwise submit to this site. Contact interactivity management.

▷ Ad Choices

Resolution: 130165.2

Presented: 3-11-13

Adopted: 3-25-13

AMENDED RESOLUTION TO PURCHASE CAPACITY FROM KAREGNONDI WATER AUTHORITY

BY THE MAYOR:

The Karegnondi Water Authority (KWA) is a governmental consortium of cities and counties in southeastern Michigan that was created to build a water pipeline that will provide water from Lake Huron to interested communities in Sanilac, Lapeer, and Genesee counties. The incorporating bodies that created the KWA are Sanilac County, Lapeer County, Genesee County, the City of Flint, and the City of Lapeer.

The City of Flint is currently in a year to year contract with the City of Detroit for the purchase of water. A study was conducted that projected that staying with Detroit will cost the region $2.1 billion over the next 25 years. In contrast, if the region builds its own pipeline, the projected costs are $1.9 billion over the same period. After the initial 25 year period, the projected costs would be less then 25% of the projected water costs from Detroit.

In order to build the pipeline, the KWA needs commitment from its members regarding the capacity that each member will purchase in the pipeline. The KWA is allowed to withdraw 85 million gallons of water per day. Capacity is available to members in increments of 1 million gallons per day known as units. For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one time fee of $32,300.00. Additionally, the buyer shall pay to the KWA not less then $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount not to exceed $355,300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00 the buyer has a right to cancel the contract.

The purchase of capacity along with the payment of other costs necessary to operate the pipeline gives the member a right to water for sale to its customers. The buyer has a right to resell capacity and water rights. Each party entering into a capacity contract shall also be entitled to appoint additional board members equal to the party's percentage share of the total capacity under contract.

The City of Flint has decided that it is in its long term best interests to enter into a contract with the KWA to purchase SIXTEEN (16) units of capacity, plus TWO (2) units from the Flint River.

IT IS RESOLVED that City officials are authorized to enter into a contract with KWA to purchase SIXTEEN (16) units of capacity, plus TWO (2) units from the Flint River.

IT IS FURTHER RESOLVED that the City Administrator is authorized to provide KWA information needed to administer the contract and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract.

APPROVED AS TO FORM:

Peter M. Bade
Chief Legal Officer

APPROVED AS TO FINANCE:

Gerald Ambrose
Finance Director

APPROVED BY MAYOR:

Dayne Walling
Mayor

APPROVED BY CITY COUNCIL
ON: March 25, 2013

Inez Brown
Clerk, City of Flint

APPROVED BY
CITY COUNCIL
MAR 25 2013

S:\JP\Ordinances and Resos\KWA.03.08.13.doc

From: Wyant, Dan (DEQ)
Sent: Thursday, October 08, 2015 5:40 PM
To: Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Dickinson, Sarah (GOV); Emmitt, Beth (GOV); Snyder, Rick (GOV)
Cc: Wyant, Dan (DEQ)
Subject: Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

Importance: High

Dear Governor,

Below are our 26 action steps we are working on:

26 Action Steps for Next Week, October 12-16, 2015

1. Identify schools and prioritize for assessment
2. Get DLARA plumbers organized
3. Complete sampling instructions
4. MDARD info for restaurants
5. Update 2004 letter to EPA
6. Approve Flint plan for water line
7. Lead education plan for schools for Drinking Water
8. Begin regular meetings with Flint
9. Schedule WTP tour
10. Meet with schools and DLARA-invitation only
11. Update Web page
12. Contact DHHS to see where they are with United Way
13. Circulate protocol draft with EPA
14. Contact City about homeowner sample delivery
15. Communicate to MDARD and City that business samples should be coordinated though lab
16. Figure out number of samples from schools and child care facilities
17. Confirm Lynda Dykema is POC for DHHS
18. Contact KWA to find out if there are any bottlenecks we need to remove
19. Expedite 399 Plan and Phosphate Plan
20. Get update on service line index card conversion and identify where partial replacements exist
21. Make sure DHHS gets info so they can cross reference
22. Legislative contacts
23. Legislative time line and summary
24. Dan reconnect with state superintendent
25. Conduct After Action Plan
26. Change Part 54-Drinking Water Revolving Loan Fund

If you have any questions, please let me know.

Dan Wyant

Director

From: Wyant, Dan (DEQ)
Sent: Friday, October 09, 2015 4:57 PM
To: Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Dickinson, Sarah (GOV); Emmitt, Beth (GOV); Snyder, Rick (GOV)
Cc: Wyant, Dan (DEQ)
Subject: 2015-10-09 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: 2015-10-09 Action Steps Week of October 12-16.pdf

Importance: High

Dear Governor,

Attached is our update for today, October 9, 2015.

We have included more information to the 26 Action Steps that we sent to you yesterday.

If you have any questions, please let me know. Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 12-16

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Identify schools and prioritize for assessment	GCISD, GCHD, DEQ, DHHS, and Flint	Steve Busch	
2.	Get DLARA plumbers organized	DEQ and DLARA	Steve Busch	
3.	Complete sampling instructions	DEQ, DHHS, and EPA	Pat Cook	
4.	MDARD information for restaurants	MDARD, DHHS, and DEQ	Dana DeBruyn	
5.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	
6.	Approve Flint plan for water line	DEQ, Flint, and Genesee County	Mike Prysby	
7.	Lead education plan for schools for drinking water	DHHS and DEQ	Liane Shekter Smith	
8.	Begin regular meetings with Flint	DEQ and Flint	George Krisztian	
9.	Schedule Water Treatment Plant tour	DEQ and Flint	George Krisztian	
10.	Meet with schools and DLARA – invitation only	DEQ, DLARA, and Flint schools	Karen Tommasulo	
11.	Update DEQ Web page	DEQ	Karen Tommasulo	
12.	Contact DHHS to see where they are with United Way regarding emergency declaration	DEQ and DHHS	George Krisztian	
13.	Circulate protocol draft with EPA	DEQ and EPA	Liane Shekter Smith	
14.	Contact city about homeowner sample delivery	DEQ and Flint	George Krisztian	
15.	Communicate to MDARD and Flint that business samples should be coordinated though DEQ laboratory	DEQ, MDARD, and Flint	Liane Shekter Smith George Krisztian	Liane to call MDARD and George to call Flint

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
16.	Figure out number of samples from schools and child care facilities	DEQ	Liane Shekter Smith Pat Cook Steve Busch	
17.	Confirm Linda Dykema is Point of Contact for DHHS	DEQ	George Krisztian	Done
18.	Contact KWA to find out if there are any bottlenecks we need to remove	DEQ and KWA	Mike Prysby	
19.	Expedite 399 Plan and Phosphate Plan	DEQ and Flint	Mike Prysby	
20.	Get update on service line index card conversion and identify where partial replacements exist	DEQ and Flint	Steve Busch	
21.	Make sure DHHS gets information so they can cross reference	DEQ and DHHS	Steve Busch	
22.	Legislative contacts	DEQ	Maggie Pallone	Conference call with Sen. Jim Ananich scheduled for October 12 at 3 pm
23.	Legislative time line and summary	DEQ	Maggie Pallone	
24.	Reconnect with State Superintendent Brian Whiston	DEQ and Department of Education	Dan Wyant	Mary Beth Thelen to schedule
25.	Conduct After Action Plan	DEQ	George Krisztian	To be scheduled for October 15
26.	Change Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone Liane Shekter Smith Sonya Butler	

From:	Wyant, Dan (DEQ)
Sent:	Monday, December 21, 2015 3:10 PM
To:	Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Emmitt, Beth (GOV); Bedan, Morgan (GOV); Baird, Richard (GOV)
Cc:	Dickinson, Sarah (GOV); Edgerton, Shelly (LARA); Dykema, Linda D. (DHHS); Wyant, Dan (DEQ)
Subject:	2015-12-21 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments:	2015-12-21 Flint Drinking Water Action Plan Update.pdf; EPA 12-16-15 E-Mail to Flint.pdf; MSU Extension Nutrition and Lead release_Dec18_FINAL.pdf

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

- Flint Drinking Water Action Plan Update
- EPA's December 16, 2015, e-mail to the city of Flint
- MSU Extension release regarding nutrition and lead

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions.

Thank you.

Dan Wyant
Director

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

Key Actions:

DEQ staff set aside additional time this week to address the backlog of FOIA legislative requests.

A conference call with staff from the DEQ, U.S. Environmental Protection Agency (EPA), and city of Flint was held on December 15, 2015, to discuss the transition to the Karegnondi Water Authority (KWA) as the city's source of drinking water. The EPA indicated that they would provide written recommendations regarding the actions that Flint should take prior to switching to the KWA.

On December 18, 2015, staff from the DEQ and DLARA conducted an initial plumbing evaluation of Flint Community Schools' Northwestern High School and Southwestern Classical Academy. These two schools are scheduled for a final evaluation and subsequent sampling during the week of December 28, 2015. Due to the extracurricular activities that typically take place on the weekends, it was determined that the best time to conduct the sampling would be during the winter school break.

Positions:

There are no new positions to report since last week.

Concern:

On December 16, 2015, the EPA sent an e-mail to Flint City Administrator, Natasha Henderson, outlining the recommended precautionary measures for Flint to implement prior to switching to the KWA for their source water. The list of recommendations is very broad in nature and could potentially costs millions of dollars to implement. In addition, the recommendations could potentially delay the switch to the KWA by several months. Given the costs associated with implementing these measures, the city of Flint will be working to set up a meeting with Harvey Hollins and George Krisztian to discuss funding options, including asking the EPA for assistance.

Significant Event:

The DEQ has assigned Eric Pocan, Office of Drinking Water and Municipal Assistance, to serve as the project manager to assist the city of Flint with providing the documentation necessary for the city to apply for loans under the Drinking Water Revolving Loan Fund. A time line outlining the various steps in the process has been given to the city of Flint to assist them in ensuring that all requisite documents are generated and submitted within the necessary deadlines. Additional follow-up meetings will be held to assist the city with any issues related to the submission of the required documentation.

Changes from Previous Report:

- Final plumbing assessment reports for Pierce Elementary and Doyle/Ryder Elementary Schools are being prepared. Staff from the DEQ, Office of Environmental Assistance, are being trained to assist with the preparation of the reports in order to reduce the turnaround time.

- The MSU Extension provided a release regarding nutrition and lead. The release provides resources for utilizing nutrition to lessen the effects of lead exposure.

- Staff from the DEQ met with staff from the city of Flint on December 18, 2015, to discuss the recommendations made by the EPA earlier in the week. The city expressed concern that EPA's recommendations went beyond the requirements of the Lead and Copper Rule. It was agreed that further discussion needed to occur to determine how these recommendations could be funded.

- Staff from the DEQ met with the Michigan Association for Local Public Health (MALPH). One of the main topics of conversation was the Flint water situation. Members of MALPH expressed concern that the lead exposure issues were not unique to Flint and that, based on the recent article in *Bridge Magazine*, the issue was statewide and there were areas in the state that had significantly high lead exposure levels.

Other Items:

Attached is the EPA's December 16, 2015, e-mail to the city of Flint, including the document entitled, "Task Force Recommendations Regarding Flint Drinking Water Treatment Performance Evaluation."

Attached is the MSU Extension release.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
December 21, 2015

Shaler, Karen (DEQ)

From: Sygo, Jim (DEQ)
Sent: Wednesday, December 16, 2015 7:49 PM
To: Shekter Smith, Liane (DEQ); Busch, Stephen (DEQ); Prysby, Mike (DEQ); Krisztian, George (DEQ)
Subject: Fwd: EPA Flint Drinking Water Task Force Recommendations -- Performance Evaluation Period
Attachments: performance evaluation period 12-16-15 final.pdf; ATT00001.htm

FYI

Sent from my iPhone

Begin forwarded message:

> **From:** "Kaplan, Robert" <kaplan.robert@epa.gov>
> **Date:** December 16, 2015 at 5:47:22 PM EST
> **To:** Natasha Henderson <nhenderson@cityofflint.com>
> **Cc:** "Sygo, Jim (DEQ)" <SygoJ@michigan.gov>
> **Subject: EPA Flint Drinking Water Task Force Recommendations -- Performance Evaluation Period**
>
> Natasha,
>
> Attached please find the EPA Flint Drinking Water Task Force Recommendations for a Performance Evaluation Period.
>
> As we discussed on December 11 and December 15, it is important to gain operational experience at the Flint Plant prior to distribution of KWA-sourced water. We have informally referred to this as a "shakedown" period for ensuring a safe and appropriate transition to the new water source.
>
> Please feel free to call me if you have any questions. We are pleased to continue to work together.
>
> - Bob
>
> Cc: Jim Sygo, MDEQ

Flint Drinking Water Task Force (FTF 15-5)

Task Force Recommendations Regarding Flint Drinking Water Treatment Performance Evaluation

For protection of public health, Flint must avoid significant distribution system issues similar to those experienced following the source water switch to the Flint River and subsequent operation of Flint's water treatment plant.

The EPA Flint Safe Drinking Water Task Force recommends that Flint develop and implement a Performance Assessment Plan prior to distribution of water from the Karegnondi Water Authority (KWA) source. The plan must address how the treatment plant will be brought on-line, and how finished drinking water will be introduced to the distribution system. This plan is particularly important given the City has no experience treating the KWA-supplied water, and is operating a distribution system that is still recovering from the past upset.

Flint should work with its consultant and MDEQ to establish objective water quality and plant performance criteria. The plan must include operation of Flint's drinking water treatment plant for a reasonable period of time to treat KWA-supplied water until:

(1) the treated water meets finished water quality goals;
(2) the finished water quality is consistently maintained;
(3) potential plant operational and mechanical start-up issues are identified and addressed; and
(4) water plant operations staff are proficient in treating the new source.

<u>KWA water should not be distributed to the public until these conditions are satisfied.</u>

During this performance evaluation period, Flint must distribute to the public water from an alternate source. As water is already received from Detroit (Great Lakes Water Authority), that is an obvious and appropriate choice for that interim period. The length of the performance evaluation period will be dependent on the amount of time it takes for the treatment plant to consistently and reliably meet the performance criteria.

Because of similarities in source water and in treatment processes with Detroit's Huron plant, the Flint water plant will likely be configured to produce treated water with similar quality to that of the water currently being received from Detroit. Continued use of Detroit water during the performance evaluation period will minimize the risk of distribution system upsets.

We encourage Flint and the City's consultant to perform a number of assessments prior to the completion of the KWA pipeline and availability of the Lake Huron source water to expedite the plant transition period. For example, the planned bench-scale jar tests will be helpful in establishing full-scale treatment plant operating parameters. Assessment of corrosion control treatment using Detroit source water with lead pipe loop rigs in advance of switching to the KWA source may also be transferrable to the KWA source water. Pipe loops rigs operated during the performance assessment period will help predict whether lead release will be an issue when the new plant goes on line. EPA will work with the City to set up pipe loops at the Flint treatment plant.

CONTACT: Beth Stuever, stuever@anr.msu.edu or 269-274-1399

MSU Extension and Hurley Children's Hospital release recipe and nutrition resource guide to help people lessen harmful effects of lead

In the wake of growing concerns about exposure to and health impacts of lead in Flint, Michigan State University Extension and Hurley Children's Hospital have released a new nutrition booklet highlighting healthful, cost-effective meals that help lessen the harmful effects of lead. The booklet will be available beginning Saturday December 19, 12:30 p.m. at the Flint Farmers Market.

Joanna Sheill, a registered dietitian with Hurley Wellness Services will be facilitating a cooking demo featuring one of the booklet's recipes – a hearty egg burrito. Free water filters will also be available at the cooking demonstration, courtesy of the Genesee County Health Department.

"Healthy nutrition is one of the most important things we can do to protect our children from lead poisoning," said Dr. Mona Hanna-Attisha, director of the Pediatric Residency Program at Hurley Children's Hospital and MSU College of Human Medicine. "In collaboration with MSU Extension nutrition experts, we have developed this lead-fighting recipe and nutrition resource guide."

The booklets will be available during weekly cooking demonstrations at the Flint Farmers Market in early 2016 and also be distributed by MSU Extension nutrition instructors at free nutrition and cooking workshops and community events throughout Genesee County.

"We are delighted to provide this practical guide and recipe booklet to families to help prevent lead poisoning," said Dawn Contreras, MSU Extension's director of health and nutrition programs. "We want to protect our family members against the harmful effects of lead and an important way of doing that is through good nutrition."

The booklet features 10 healthful recipes that focus on low-cost ingredients, many of which people will likely already have in their pantries and cupboards. Recipes include chocolate strawberry French toast, vegetable lasagna and roasted butternut squash. Contact information for several food assistance programs and other resources in Genesee County, including Women Infants and Children (WIC), Supplemental Nutrition Assistance Program (SNAP) and Double Up Food Bucks is also listed in the booklet.

These programs help families throughout Michigan access healthy, nutritious and low-cost foods and are essential to helping Flint navigate through this challenging time, said Dr. Hanna-Attisha.

The recipes in the booklet are provided via the Share Our Strength Cooking Matters curricula, which MSU Extension delivers throughout Michigan to help people learn how to eat healthy, cook and grocery shop on a limited budget.

For more information about the nutrition booklet, please contact Dr. Mona Hanna-Attisha at mhanna1@hurleymc.com or MSU Extension Educator Erin Powell at powelle9@msu.edu or 810-244-

8536. MSU Extension also offers free nutrition classes in the Flint area, for more details visit msue.anr.msu.edu or call 810-244-8500.

###

From: Dickinson, Sarah (GOV)
Sent: Monday, September 28, 2015 10:34 AM
To: Bedan, Morgan (GOV)
Subject: RE: Updated Summary of September 15 Conference Call
Attachments: Summary - Conference Call with City of Flint.pdf

Like dis?

From: Bedan, Morgan (GOV)
Sent: Monday, September 28, 2015 10:29 AM
To: Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>
Subject: Re: Updated Summary of September 15 Conference Call

Correct. Don't worry about cover sheet

Sent from my iPhone

On Sep 28, 2015, at 10:27 AM, Dickinson, Sarah (GOV) <DickinsonS@michigan.gov> wrote:

> Is this like what you showed me the other day with the briefing format or am I just PDFing the Word doc and combining into one doc. SRY I HAVE SO MANY QUESTIONS
>
> ---
>
> **From:** Bedan, Morgan (GOV)
> **Sent:** Monday, September 28, 2015 10:22 AM
> **To:** Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>
> **Subject:** Fwd: Updated Summary of September 15 Conference Call
>
> Can you do?
>
> Sent from my iPhone
>
> Begin forwarded message:
>
> > **From:** "Scott, Allison (GOV)" <scotta12@michigan.gov>
> > **Date:** September 28, 2015 at 10:21:34 AM EDT
> > **To:** "Bedan, Morgan (GOV)" <BedanM@michigan.gov>
> > **Subject: FW: Updated Summary of September 15 Conference Call**
> >
> > Can you put into a pdf and send to me please
> >
> > ---
> >
> > **From:** Cline, Richard (Treasury)
> > **Sent:** Wednesday, September 16, 2015 3:13 PM
> > **To:** Saxton, Thomas (Treasury) <SaxtonT@michigan.gov>; Workman, Wayne (TREASURY) <WorkmanW@michigan.gov>
> > **Cc:** Dempkowski, Angela (Treasury) <DempkowskiA@michigan.gov>
> > **Subject:** Updated Summary of September 15 Conference Call
> > **Importance:** High
> >
> > Tom/Wayne:

Attached, per your request, is an updated summary of the September 15 call with the City of Flint plus an update on utility upgrades, provided by the City.

If you need anything further, let me know.

Eric Cline | Department Manager
State of Michigan | Michigan Department of Treasury | Office of Fiscal Responsibility
430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
Lansing Office (517) 335-2078 | [redacted] | Traverse City Office (231) 922-5228
E-mail cliner1@michigan.gov

CONFIDENTIALITY NOTICE: This e-mail, and any attachments, is for the sole use of the intended recipient(s) and may contain information that is confidential and protected from disclosure under the law. Any unauthorized review, use, disclosure, or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail, and delete/destroy all copies of the original message and attachments Thank you.

Summary: Conference Call with City of Flint

September 15, 2015

Participating: Tom Saxton, Wayne Workman, Fred Headen, Eric Cline, Mayor Walling, City Administrator Natasha Henderson, Finance Director Jody Lundquist, City Attorney Pete Bade, Assistant City Attorney Tony Chubb

Redacted

Summary: Conference Call with City of Flint

September 15, 2015

Redacted

- Treasury is not aware of any current Flint projects related to their water quality issues that could be funded through the DWRF program and DEQ is responsible for managing DWRF eligible projects.

City of Flint
Water Quality Update
Wednesday September 16TH, 2015

GAC Installation

What: ***$1,601,740 contract with LAN*** to design and install new filter media at the Water Plant

Status: Complete

Leak Detection

What: ***$900,000 Treasury Distressed City Grant*** for Leak Detection / Pipe Wall Assessment

Status: In Progress

The vendor "echologics" is nearly 1/3 complete with the leak detection

WPC Incinerator Shutdown

What: ***$1,100,000 Treasury Distressed City Grant*** for WPC Incinerator Shutdown

Status: In construction phase

The walls are nearly done being erected.

Next steps: Construction of the walls.

Water Meter Installation

What: ***$5,000,000 contract*** to purchase and install up to 18,000 water meters.

Status: In progress

The vendor has established a good routine and has installed approximately 3000 of the targeted 9000 meters have been installed

Installers are facing more resistance from customers about the change outs ~300 people are refusing the installation.

Small jumpers were added to the installation to protect plastic meters going in place of metal to protect electronics within the household.

The main focus of this contract was the $2,500,000 on the front end to complete the targeted 9000 meter installation. This was an FY15 expenditure.

Next steps: Continue with the progress.

From: Dickinson, Sarah (GOV)
Sent: Tuesday, October 06, 2015 8:44 AM
To: Kennedy, Jordan (GOV)
Subject: FW: Flint Water updates

Can you let me know if you hear that there will be stuff from comms for Flint Water updates every day? Want to be sure I'm not sending the briefing without comms input if they have input to provide. Thaaaanks ☺

From: Emmitt, Beth (GOV)
Sent: Tuesday, October 06, 2015 8:39 AM
To: Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>
Subject: FW: Flint Water updates

From: Wyant, Dan (DEQ)
Sent: Tuesday, October 06, 2015 8:30 AM
To: Scott, Allison (GOV) <scotta12@michigan.gov>
Cc: Emmitt, Beth (GOV) <emmittb@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: Re: Flint Water updates

Yes.

Sent from my iPhone

On Oct 6, 2015, at 8:23 AM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:

> See below - DAN can your team assist with daily updates to GOV for his nightly briefing so he is not up to date. Your team would be responsible for collecting info from other depts involved etc
>
> Let me know if you have questions or concerns
>
> Thanks
>
> Thanks
>
> Sent from my iPhone
>
> Begin forwarded message:
>
> > **From:** "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>
> > **Date:** October 6, 2015 at 8:20:24 AM EDT
> > **To:** "Scott, Allison (GOV)" <scotta12@michigan.gov>
> > **Cc:** "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>
> > **Subject: Re: Flint Water updates**

Update from Dan in briefing. Comms to also send update for briefing on stories or announcements upcoming. But Dan will have most accurate testing and analysis details to report.

On Oct 6, 2015, at 8:14 AM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:

What is most effective accurate rout? Dan provided update for briefing each day or does Comms shop speak to DEQ Comms and provide?

Sent from my iPhone

On Oct 6, 2015, at 8:05 AM, Snyder, Rick (GOV) [redacted] wrote:

We need a better update system re Flint Water.

I saw in the press this am that DHHS announced yesterday that water filters would start being given out today. This should have come internally with more detail. I had press questions last night.

Overall, we should have a daily report on Flint until our recommendations are fully implemented.

For example:

1. What are the water test results from the public schools?

2. How many free test have been requested? How many have been done? How many remain and how long have they been waiting? What are the results - no lead, lead consistent with history, higher levels?

3. How many filters have been distributed? How many unfulfilled requests?

4. New blood test results? Especially in the two zip codes.

5. Analysis of tech advisory group

6. Analysis of the GLWA vs. Flint River vs. KWA.

Thanks
Rick

Sent from my iPad

From: Dickinson, Sarah (GOV)
Sent: Wednesday, October 21, 2015 2:51 PM
To: Bedan, Morgan (GOV)
Subject: RE: 2015-10-21 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: Flint Water.pdf

Here you go. Also, I just booked the rooms for 12/2 in DC so that should be set.

From: Bedan, Morgan (GOV)
Sent: Wednesday, October 21, 2015 2:33 PM
To: Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>
Subject: Fwd: 2015-10-21 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

Can you put into one doc and send back? Thanks!

Sent from my iPhone

Begin forwarded message:

> **From:** "Wyant, Dan (DEQ)" <WyantD@michigan.gov>
> **Date:** October 21, 2015 at 2:31:54 PM EDT
> **To:** "Scott, Allison (GOV)" <scotta12@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Emmitt, Beth (GOV)" <emmittb@michigan.gov>, "Bedan, Morgan (GOV)" <BedanM@michigan.gov>
> **Cc:** "Wyant, Dan (DEQ)" <WyantD@michigan.gov>, "Dickinson, Sarah (GOV)" <DickinsonS@michigan.gov>
> **Subject: 2015-10-21 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED**
>
> Dear Governor's Office:
>
> Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.
>
> 1. Action Steps Updated Document for the week of October 19-23, 2015
> 2. Flint Drinking Water Action Plan Update
>
> Thank you.
>
> Dan Wyant
> Director

City of Flint Water
Action Steps for Week of October 19-23

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	This Action Step has been incorporated as part of the After Action Plan (Action Step #4)
2.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	Scheduled for 10/23/15 at 11:30 a.m.
3.	Figure out number of samples from schools and child care facilities	DEQ	Jim Sygo Pat Cook Steve Busch	1,300 samples (13 schools and 100 samples per school)
4.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting to be scheduled for week of 10/19/15
5.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
6.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	
7.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	
8.	$1 million for DEQ Laboratory billing code	DEQ	Maggie Pallone George Krisztian	
9.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
10.	Develop letter to schools	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	This Action Step has been incorporated into Action Step #13
11.	Finalize sampling protocol	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Revised draft sampling protocol shared with DLARA, DHHS, EPA, and Genesee County Health Department on 10/19/15 for comment
12.	Confirm school sampling logistics	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
13.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	A meeting with the 10 remaining schools is tentatively scheduled for the week of 10/26/15
14.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting
15.	ODWMA staff observe a DLARA plumbing assessment	DEQ and DLARA	Steve Busch Pat Cook Mike Prysby	Initial plumbing assessment is scheduled for 10/23/15; sampling to occur on 10/24/15
16.	Develop sample form and chain of custody document	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ Laboratory has created a fillable PDF form for use in the school sampling protocol

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
17.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Conference call with EPA held on 10/20/15 to discuss comments
18.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Construction permit is in process
19.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
20.	Provide city of Flint updated monitoring schedule based on Detroit Water and Sewerage Department (DWSD)/Great Lakes Water Authority (GLWA) service	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
21.	Contact city of Flint and Genesee County Health Department daily for DWSD connection status updates	DEQ, Flint, and Genesee County Health Department	Jim Sygo Steve Busch Pat Cook Mike Prysby	Switch to DWSD completed on 10/16/15; city of Flint will let DEQ know if they run into any unforeseen issues
22.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	
23.	Verify city of Flint distribution operations under DWSD/GLWA service	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
24.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
25.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
26.	Develop childcare facility guidance or review DHHS related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- Action Step #1 has been incorporated into the After Action Plan (Action Step #4).

- It was determined that the information in Action Step #10 would be communicated better in person and has, therefore, been incorporated into Action Step #13.

- DEQ staff has tentatively identify the week of October 26 to meet with representatives from the remaining 10 locations in the Flint Community Schools who were not present at the October 16 meeting at the Superintendent's office.

- DEQ staff has contacted DHHS to request a meeting regarding lead education materials for schools.

- The first plumbing assessment has been scheduled for Friday, October 23. The subsequent sampling of the first facility has been scheduled for Saturday, October 24. This decision was made jointly among DEQ, DLARA, and DHHS in an effort to ensure that sampling staff could properly evaluate the sampling protocol without the added pressure of completing the sampling process before students arrived on-site.

- The DEQ Laboratory has created a fillable PDF form for use in the school sampling protocol. This form was created to streamline the information gathering process. The form was submitted for review by staff in DEQ, DHHS, and DLARA, and comments were subsequently incorporated. The form is now complete and ready for use.

- The corrosion control treatment plan (CCTP) and permit application were received late last Friday, October 16, and were reviewed. Our review comments were provided to Flint's consultant [Lockwood, Andrews & Newnam, Inc. (LAN)]. The CCTP was forwarded to EPA on October 16, and their comments were received on October 19. A conference call was held on October 20 between our staff and Darren Lytle and Michael Schock of EPA to discuss the main comments (EPA's and DEQ's) to confirm that both agencies concur with the design and proposed corrosion control dosages. We are currently preparing a revised set of comments, based on our discussion with EPA. The revised comments will be sent to EPA to confirm concurrence before sending to LAN.

- An Act 399 permit will be issued to the city of Flint to install corrosion control treatment following receipt of revised plans, specs, and – as needed – a permit application that addresses the revised review comments.

- DEQ staff has contacted DHHS to schedule a meeting to discuss the development of childcare facility guidance. This guidance will be similar in nature to what is being done in schools but will be tailored to address the specific

concerns with younger children and the smaller plumbing infrastructure of typical childcare facilities.

Additional Actions:

- Standing meetings with the city of Flint have been scheduled for Fridays at 10:00 a.m. These meetings have been scheduled through December 18. In addition, a tour of the Flint Water Treatment Plant has been scheduled for October 23. The DEQ be taking video footage of the tour, showing the coordinated efforts being taken by the city of Flint, DEQ, DHHS, and DLARA. Genesee County Health Department (GCHD) has been invited to the Friday meetings as well as the tour, and GCHD is in the process of determining if they can participate.

- A meeting was held between staff from the DEQ, DLARA, and DHHS to discuss details regarding the flow and coordination of efforts for the school sampling protocol. It was mutually agreed that it was best to only do one school at first so that we can ensure that the process runs smoothly from partner to partner. The first plumbing evaluation will be done at Freeman Elementary School on Friday, October 23. Steve Busch of the DEQ will accompany staff from DLARA to answer questions they might have during their plumbing evaluations. The subsequent water sampling effort will take place the next day, on Saturday, October 24. It was agreed that taking the samples on Saturday would allow staff to be able to evaluate the sampling process without the added pressure of ensuring that the sampling was complete before students arrived at the building.

- DEQ Director Dan Wyant, Jim Sygo, George Krisztian, and Karen Tommasulo held a conference call with Dr. Susan Hedman, EPA's Regional Administrator, and other representatives from EPA to discuss the EPA's formation of the Flint Safe Drinking Water Task Force. The purpose of the Task Force is to provide one-stop shopping for technical assistance for the optimization of corrosion controls for the switch from Detroit Water and Sewerage Department to the Karegnondi Water Authority. EPA requested a point of contact for the DEQ, and Director Wyant suggested Chief Deputy Director Jim Sygo. EPA agreed that this was an appropriate choice and requested a formal letter indicating Chief Deputy Director Sygo as the point of contact.

- DHHS has indicated that the total water filter/pitcher distribution for the period of October 6 through October 20 was 9,373 units.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]

October 21, 2015

From: Dickinson, Sarah (GOV)
Sent: Thursday, October 22, 2015 1:33 PM
To: Bedan, Morgan (GOV)
Subject: RE: 2015-10-22 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: Flint Water.pdf

Anything 4u

From: Bedan, Morgan (GOV)
Sent: Thursday, October 22, 2015 1:25 PM
To: Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>
Subject: Fwd: 2015-10-22 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

Can you frow deez into one and send to me

Sent from my iPhone

Begin forwarded message:

> **From:** "Wyant, Dan (DEQ)" <WyantD@michigan.gov>
> **Date:** October 22, 2015 at 12:39:13 PM EDT
> **To:** "Scott, Allison (GOV)" <scotta12@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Emmitt, Beth (GOV)" <emmittb@michigan.gov>, "Bedan, Morgan (GOV)" <BedanM@michigan.gov>
> **Cc:** "Wyant, Dan (DEQ)" <WyantD@michigan.gov>, "Dickinson, Sarah (GOV)" <DickinsonS@michigan.gov>
> **Subject: 2015-10-22 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED**
>
> Dear Governor's Office:
>
> Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.
>
> 1. Action Steps Updated Document for the week of October 19-23, 2015
> 2. Flint Drinking Water Action Plan Update
>
> Thank you.
>
> Dan Wyant
> Director

City of Flint Water
Action Steps for Week of October 19-23

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	This Action Step has been incorporated as part of the After Action Plan (Action Step #4)
2.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	Scheduled for 10/23/15 at 11:30 a.m.
3.	Figure out number of samples from schools and child care facilities	DEQ	Jim Sygo Pat Cook Steve Busch	1,300 samples (13 schools and 100 samples per school)
4.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting scheduled for 10/22/15
5.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	Draft language submitted to Maggie Pallone for review
6.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	Panel created and press release issued on 10/21/15
7.	Staff hiring plan	DEQ	Jim Sygo Maggie Pallone George Krisztian	
8.	$1 million for DEQ Laboratory billing code	DEQ	Maggie Pallone George Krisztian	Billing codes created on 10/21/15
9.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
10.	Develop letter to schools	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	This Action Step has been incorporated into Action Step #13
11.	Finalize sampling protocol	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Comments received from EPA's Flint Safe Drinking Water Task Force (Task Force); DEQ staff continuing to finalize protocol
12.	Confirm school sampling logistics	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Logistics have been finalized for the initial sampling scheduled for 10/24/15
13.	Meeting(s) with school staff/management	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	A meeting with the 10 remaining schools is tentatively scheduled for the week of 10/26/15
14.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting
15.	ODWMA staff observe a DLARA plumbing assessment	DEQ and DLARA	Steve Busch Pat Cook Mike Prysby	Initial plumbing assessment is scheduled for 10/23/15; sampling to occur on 10/24/15
16.	Develop sample form and chain of custody document	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ Laboratory has created a fillable PDF form for use in the school sampling protocol

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
17.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Conference call with EPA held on 10/20/15 to discuss comments
18.	Review construction permit application and issue construction permit for phosphate equipment	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	Construction permit is in process
19.	Review Standby Operation of Flint Water Treatment Plant with city of Flint	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ staff is reviewing and seeking clarification on comments received from EPA's Task Force
20.	Provide city of Flint updated monitoring schedule based on Detroit Water and Sewerage Department (DWSD)/Great Lakes Water Authority (GLWA) service	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
21.	Contact city of Flint and Genesee County Health Department daily for DWSD connection status updates	DEQ, Flint, and Genesee County Health Department	Jim Sygo Steve Busch Pat Cook Mike Prysby	Switch to DWSD completed on 10/16/15; city of Flint will let DEQ know if they run into any unforeseen issues
22.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues	DEQ and KWA	Jim Sygo Steve Busch Pat Cook Mike Prysby	Monitoring letter expected to be mailed on 10/22/15
23.	Verify city of Flint distribution operations under DWSD/GLWA service	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
24.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby	
25.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	
26.	Develop childcare facility guidance or review DHHS related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	DEQ has contacted DHHS to schedule a meeting

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

- The initial meeting for the internal After Action Plan is scheduled for October 22. The purpose of the meeting is to define the scope of the internal review, create a detailed time line, connect all communications together to determine where communications could have been improved, and create a list of lessons learned and action steps moving forward.

- Madhu Anderson has provided information for the creation of an external After Action Review Panel. The Panel members have been selected, and a press release was issued by the Governor's office on October 21.

- The DEQ Laboratory, working in conjunction with MDOT's Accounting Services Division, has created the necessary billing codes to allow payment for the lead and copper samples from the city of Flint to be processed.

- The EPA's Flint Safe Drinking Water Task Force (Task Force) has provided comments to staff in the Office of Drinking Water and Municipal Assistance (ODWMA) on the sampling protocol. These comments are being reviewed, and ODWMA staff is continuing to finalize the protocol.

- The logistics for the initial plumbing evaluation and subsequent water sampling have been finalized among staff from DEQ, DLARA, and DHHS. The plumbing inspection is scheduled for Friday, October 23, and the water samples will be taken on Saturday, October 24.

- DEQ staff is responding to comments on the corrosion control proposal made by the EPA's Task Force. DEQ staff is following up on questions raised during the October 20 conference call.

- A monitoring schedule letter is expected to be mailed on October 22. The monitoring schedule addresses the change back to a customer supply of the Great Lakes Water Authority. A final copy of the letter will be attached to tomorrow's update.

Additional Actions:

- At the request of Representative Sheldon Neeley, George Krisztian contacted Carlita Earl, Principal of the Eagle's Nest Academy. Ms. Earl has formally requested that Eagle's Nest Academy receive a plumbing evaluation and water sampling as outlined in the newly-developed school assessment protocol. Ms. Earl was informed that she would be added to the list of schools being evaluated and that the original 13 Flint Community Schools buildings would be

evaluated first and then the DEQ/DLARA/DHHS would expand the evaluation process to charter schools, parochial schools, and other childcare facilities. Ms. Earl was informed that since the Eagle's Nest Academy serves children in grades K-4 that they would be placed at the top of the list once the evaluations of the original 13 buildings are complete.

- Director Dan Wyant, Chief Deputy Director Jim Sygo, and George Krisztian met with a group of pastors and citizens who came to Constitution Hall to voice their concerns regarding the water in Flint. The discussion lasted for approximately one hour, and the topics included a history of events, questions regarding how decisions were made, and the plan moving forward. The group indicated that they had read a great deal in the media and were interested in finding out what DEQ's perspective of the situation was. The questions were tough, but the conversation was very respectful. The group was informed that an independent group external to the DEQ would be conducting an After Action Review, and this information seemed to be well-received.

- Shelly Edgerton of DLARA spoke to Eric Swanson of DTMB, who is going to call Howard Croft, Public Works Director, city of Flint, about the GIS program that the city of Flint is trying to run. Eric will follow up with Shelly after the conversation. In addition, DLARA will be meeting again with the city of Flint.

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
October 22, 2015

From: Prysby, Mike (DEQ)
Sent: Monday, January 05, 2015 8:31 AM
To: Brader, Valerie (GOV)
Subject: Accepted: Conference call re emergency service requirements (Genesee County - DWSD)

From: Shekter Smith, Liane (DEQ)
Sent: Monday, January 05, 2015 8:57 AM
To: Brader, Valerie (GOV)
Subject: Accepted: Conference call re emergency service requirements (Genesee County - DWSD)

Subject: DM/EC/JA/RB/JW/JR/HH/SW/DM/DW/NL/GL/DP or DA or ML re Flint next steps
Location: Governor's Conference Room - 2nd Floor Romney (call in number below)

Start: Wed 10/14/2015 11:30 AM
End: Wed 10/14/2015 12:00 PM

Recurrence: (none)

Meeting Status: Meeting organizer

Organizer: Agen, Jarrod (GOV)
Required Attendees: Agen, Jarrod (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Baird, Richard (GOV); Walsh, John (GOV); Redford, James (GOV); Hollins, Harvey (GOV); Wurfel, Sara (GOV); Murray, David (GOV); Wyant, Dan (DEQ); Lyon, Nick (DHHS); Lasher, Geralyn (DHHS); Posthumus, Dick (GOV); Ackerman, Darin (GOV); Lange, Michelle (GOV); Rospond, Laurie (GOV); Thomet, Ruth (GOV); Thelen, Mary Beth (DEQ); Grijalva, Nancy (DHHS); Hall, Jean (GOV); VanSickle, Michele (GOV); Clayton, Stacie (GOV)
Optional Attendees: Wells, Eden (DHHS); Adler, Ari (GOV)

MDHHS Action Plan Flint EBL.DO...

[redacted] (Jarrod to host)

Michigan Department of Community Health (MDHHS) Flint Water Action Plan

Action	Local Lead	MDHHS Lead	Tasks
Filter/Water Distribution	Tamara Brickley (Genesee County Health Department-GCHD)	Sheryl Thompson, MDHHS	- Coordination of distribution (GCHD) - Identify at-risk sub-groups (GCHD) - Tracking filters- uniform registry held by GCHD - Ordering filter replacements (MDHHS)
Blood Testing	Tony LaRocco (GCHD) Possible partners: - Hurley - Great Flint Health Coalition - MIHP - LHD - Schools	Dr. Eden Wells/ Nancy Peeler (CLPPP)	- Test all o Students 0-16 o Priorities: ▪ 3 schools ▪ 2 zip codes ▪ ages 0-15 - Convene meeting with GCHD and all potential partners (MDHHS) o Partner with schools- information about testing sites options distributed through school districts to parents o Partner with Great Flint Health Coalition-network to develop testing sites and information about testing to healthcare providers o Partner with Hurley/McClaren/Genesys o Partner with MIHP/Home Visiting Program - Confirm that the state lab has capacity to handle increase in tests- CONFRIMED
Case Management Follow Up	Tony LaRocco (GCHD)	Eden Wells/ Nancy Peeler (CLPPP)	- Identification of all current positives- confirmatory testing for > 5 mcg/dl (as of April 2014) - Maintain registry of all tests performed (-/+) - Follow-up all cases >5 mcg/dl with the CLPP Case Management protocol
Elevated Blood Level Investigations(all > 5 mcg/dl)	Dawn Hallwood (GCHD)	Linda Dykema	- Secure financial resources necessary to support environmental health response - Follow-up CLPPP to see if immediate funds available - Recommendation to contract with Lead Investigation company thru SEMHA-

			licensed investigators
Communications	Hilda McShane (GCHD)	Geralyn Lasher	- Daily MDHHS and GCHD phone calls (3PM) - Provide provider education- links sent for Governor's site to GCHD 10/12 - Provide public education - Provide risk education - Provide links with lead prevention information to Flint

Subject: RDS/DM/JA/EC/DW/NL/HH/MAnderson - Flint After Action Meeting
Location: Governor's Office, Romney

Start: Wed 10/21/2015 9:00 AM
End: Wed 10/21/2015 10:00 AM

Recurrence: (none)

Meeting Status: Accepted

Organizer: GovCalendar
Required Attendees: VanSickle, Michele (GOV); Baird, Richard (GOV); Wisniewski, Wendy (GOV); Clement, Elizabeth (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Wyant, Dan (DEQ); Thelen, Mary Beth (DEQ); Lyon, Nick (DHHS); Grijalva, Nancy (DHHS); Clayton, Stacie (GOV); Hollins, Harvey (GOV); Anderson, Madhu (DEQ)

Ken Sikkema, Chris Kolb, Eric Rothstein, Dr. Matt Davis, Dr. Lawrence Reynolds (by phone)

[redacted]

Host: [redacted]– RH to host

Agenda:

1) Introductions
2) Mission of Task Force
3) Background Info
4) Discussion of Timeline
5) Q & A from Task Force Members
6) Communications Strategy/Review Press Release

Attachments:

1. JA Memo
2. Resumes
3. Press Release

Flint After Action Meeting.pdf...

Flint After Action Kolb, Davis...

Flint After Action Press Relea...

*****Staff*****
Chris Kolb [redacted]
Eric Rothstein [redacted]
Ken Sikkema [redacted]
Matt Davis [redacted]

RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

BRIAN CALLEY
LT. GOVERNOR

Contacts: Sara Wurfel or Dave Murray 517-335-6397	**FOR IMMEDIATE RELEASE** Wednesday, Oct. 21, 2015

Gov. Rick Snyder announces formation of Flint Water After Action Report Commission

Experts will provide ongoing monitoring of city water system

LANSING, Mich. – Gov. Rick Snyder today announced a new task force to review the state's actions regarding water usage and testing in Flint. The commission will conduct a thorough review and lay out recommendations on future guidelines for water testing. It will also monitor the transition of Flint's city water system back to the Great Lakes Water Authority, and its eventual transition to the Karegnondi Water Authority pipeline.

The commission will be co-chaired by Ken Sikkema of Public Sector Consultants and Chris Kolb, of the Michigan Environmental Council. Also serving will be Dr. Matthew Davis of the University of Michigan Health System, and Eric Rothstein, of the Galardi Rothstein Group.

"As stated previously, transitioning back to the Great Lakes Water Authority is a good first step to protecting public health in Flint, but it's not the last step," Snyder said. "Bringing in outside experts to evaluate our actions and help monitor and advise on technical issues will be key to continuing work on the comprehensive action plan and ensuring safe drinking water for all the citizens of Flint."

Ken Sikkema is a senior policy fellow at Public Sector Consultants, where he specializes in public finance, environment, and energy policy. Prior to joining the firm, Sikkema served in both the Michigan House and Senate, culminating with four years as Senate Majority Leader. He has also served as both an adjunct and visiting professor at Grand Valley State University.

Chris Kolb is president of the Michigan Environmental Council, a statewide coalition of 70 environmental, public health and faith-based nonprofit groups. Before joining the MEC, Kolb represented Ann Arbor in the state House for six years and served eight years on the Ann Arbor City Council. He has been president of the MEC for eight years.

Matthew Davis, M.D., M.A.P.P., is Professor of Pediatrics and Internal Medicine at the University of Michigan Health System and Professor of Public Policy at the Gerald R. Ford School at the University of Michigan, having joined the faculty in 2000. He is the founding Director of the C.S. Mott Children's Hospital National Poll on Children's Health and the National Voices Project. Dr. Davis also previously served as the Chief Medical Executive of the Michigan Department of Community Health/Department of Health and Human Services.

Eric Rothstein is a national water issues consultant and principal at the Galardi Rothstein Group. He served as an independent advisor on the creation of the Great Lakes Water Authority. Rothstein also has served as Jefferson County, Alabama's rate consultant and municipal advisor for litigation related to the county's bankruptcy and issuance of $1.7 billion in sewer warrants and led strategic financial planning for the City of Atlanta's Department of Watershed Management. He has more than 30 years of experience in water, wastewater and stormwater utility finance and rate-making assessments.

As Gov. Snyder previously stated, reconnecting with the authority will not completely resolve the city's problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control.

To best protect public health, state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead exposure. The Michigan Departments of Environmental Quality is continuing to provide free water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

####

Chris Kolb

[redacted]

EDUCATION:

The University of Michigan, Ann Arbor, Michigan
Bachelor of Science in Natural Resources, GPA 3.55
Dean's List, Honors Society

Emory University, Atlanta, Georgia
Graduate studies in Political Science focusing on Quantitative Analysis, and Interest Group Politics; Scholarship, Grant, and Fellowship Recipient. Accepted into advanced studies for PhD.

EXPERIENCE:

Executive Director, Current
Unity Michigan, Ann Arbor, Michigan

Responsible for the organization and implementation of the new statewide campaign to create a progressive Michigan by advancing lesbian, gay, bisexual, and transgender (LGBT) and social justice values and issues. Coordinate and implement the collaborative efforts of five leading LGBT and equality organizations; ACLU of Michigan, Affirmations, Michigan Equality, SPICE, and Triangle Foundation. Lead the campaign's research and subsequent activities in Michigan. Successfully developed and implemented a primary election strategy in legislative races. Engage in successful communications with the LGBT community, the campaign's supporters and partners, and supportive national groups. Coordinate a broad, effective campaign with consultants, including coalition building, list building, voter contact and get-out-the-vote activities. Represent the organization at meetings and events with the public and press.

Vice President for Public Affairs, 2007-2008
Early Childhood Investment Corporation, Lansing Michigan

Directed all public affairs activities in a statewide effort to improve the status of Michigan's children, aged zero to five. Developed and implemented public policy at the federal, state and local levels working with key decision-makers, staff and public. Educated and informed elected officials on the importance of investing in early childhood. Secured increased funding over $11 million, including $5.75 million for ECIC. Helped to develop Governor's $30 million early childhood initiative outlined in Fiscal 2009 budget. Successfully planned 2008 Star Power Rally at the Capitol for over 500 early childhood supporters. Coordinated activities of the Michigan Legislative Children's Caucus; worked directly with state departments involved in early childhood development including Community Health, Education, Human Services, and Labor and Economic Growth; provided speakers and testimony to legislative hearings to inform and educate Legislature; reviewed and monitored all legislation impacting early childhood development; provided training to local Great Start Collaboratives to work with their local, state, and federal decision-makers; coordinated development of an early childhood public policy agenda; and, worked to increase knowledge of Legislature and public on importance of early childhood development, advance public education, and increase public and private investment in Michigan's children.

State Representative, 2001-2006
53rd State House District, Lansing, Michigan

Three-term State Representative, appointed for two terms (2003-2006) to the House Appropriations Committee served as the Ranking Democrat on four appropriations

subcommittees: Economic Development, Department of Environmental Quality, Higher Education, and the Department of Human Services, and served on the Corrections subcommittee (2003-4). In second term, was appointed by Governor Granholm to serve on the Michigan Land Use Leadership Council to develop a report and recommendations for the Governor and Legislature on land use issues. Appointed Ranking Democrat on the House Committee on Land Use and Environment (2001-2002), and served on the House Commerce Committee (2001-2002). Authored numerous legislation enacted into law, including legislation creating joint planning commissions, Land Bank Fast Track authorities, open space ordinance requirement for local governments, lead poisoning prevention for children, regulation of polybrominated biphenyl ethers (PBDEs), renewal of the baseline environmental assessment fee, establishment of the refined petroleum product cleanup program to help clean up leaking underground storage tanks, welfare reform and a bill to help create the Fire Services Bureau. Legislative focus included land use and planning, the environment, natural resources, toxins, children's health, alternative energy, economic development, mental health, higher education, and civil rights.

Legislative Assistant, 1999-2000
52nd District, Lansing Michigan
Served as a Legislative Assistant to Representative John Hansen, provided policy research, constituent services, reviewed legislation and executive budget data, and attended meetings on behalf of the Representative in the District. Contacted constituents and interest groups, assisted with amendments and bill development.

Environmental Consultant
Ann Arbor, Michigan 1993-1999

Provided consulting services in the environmental management and compliance field to businesses in Michigan and Ohio. Consulting services specialized in solid waste management, waste reduction and recycling, environmental compliance and permitting, worker safety training, and project management including on-site facility management.

HONORS:

Legislator of the Year, Michigan Fire Chiefs, 2006
Presidents Award, Michigan Fire Inspectors Society, 2006
Co-Chair of the Fire Service Legislative Caucus
The 2005 Legislative Award from the Michigan Audubon Society
Liberty Bell Award, Washtenaw County Bar Association, 2004
Legislative Award from the National Alliance on Mental Illness, 2004
Environmental Stewardship Award, Sierra Club, Mackinac Chapter, 2004
Legislator of the Year, U of M Students of Choice and College Democrats, 2003
Freedom Award, St. Mary's Christian Fellowship, 2002
Legislative Award from the Michigan League of Conservation Voters, 2002
Henry Toll Fellowship Leadership Class of 2002, Council of State Governments (CSG)
Legislator of the Year, Association for Children's Mental Health, 2001
Bowhay Institute for Legislative Leadership, CSG – Midwest, 2001
Next Generation Leadership Class at East-West Center, University of Hawaii, 1996

COMMUNITY ACTIVITES:

Ann Arbor City Councilmember, 1993-2000, Mayor Pro-tem, 1994-2000.

HIV/AIDS Resource Center Board of Directors, Chair; Girl Scout Council of Huron Valley, Board of Directors; previously served as Co-Chair of the Affordable Housing Task Force, Washtenaw County Solid Waste Planning Commission, and Michigan Municipal League's Transportation and Environmental Committee; volunteered for organizations involving environment, youth, hunger, LGBT, housing, health care, veterans and religious organizations.

Matthew M. Davis, M.D., M.A.P.P.
Professor of Pediatrics and Communicable Diseases
Professor of Internal Medicine
Professor of Public Policy
Professor of Health Management and Policy
University of Michigan
[redacted]
Email: [redacted]

EDUCATION

HIGH SCHOOL	Eden Senior High School (1981-1985) Eden, New York	
UNDERGRADUATE	Swarthmore College (1985-1989) Swarthmore, Pennsylvania Major Field: Biology	BA with honors, 1989
PROFESSIONAL	Harvard Medical School (1990-1994) Boston, Massachusetts	MD *cum laude*, 1994
	Irving B. Harris School of Public Policy Studies (1999-2000) University of Chicago Chicago, Illinois	MAPP, 2000

POSTDOCTORAL TRAINING

Internship in Internal Medicine and Pediatrics — June 1994 - June 1995
Brigham & Women's Hospital and The Children's Hospital
Boston, Massachusetts

Residency in Internal Medicine and Pediatrics — June 1995 - June 1998
Harvard Combined Residency in Medicine and Pediatrics
Boston, Massachusetts

Acting Chief Residency in Primary Care/Internal Medicine — July 1997 - November 1997
Brigham and Women's Hospital
Boston, Massachusetts

Robert Wood Johnson Foundation Clinical Scholars Program — July 1998 - June 2000
University of Chicago
Chicago, Illinois

CERTIFICATION AND LICENSURE

State of Massachusetts full medical license #155272	1997 - 1998
State of Illinois full medical license #0036-098102	1998 - 2001
State of Michigan full medical license #J693073	2000 -
Drug Enforcement Administration Certificate #BD5935575	2000 -
Diplomate of the American Board of Pediatrics, #064080 - Recertified through 12/31/2017	1998 -
Diplomate of the American Board of Internal Medicine, #194261 - Recertified through 12/31/2021	1999 -

ACADEMIC APPOINTMENTS

Lecturer in Pediatrics and Communicable Diseases and Internal Medicine University of Michigan	July 2000 - February 2002
Core Faculty, Child Health Evaluation and Research (CHEAR) Unit Division of General Pediatrics, University of Michigan	July 2000 -
Core Faculty, Pediatric Health Services Research Fellowship Program, Division of General Pediatrics University of Michigan	July 2000 -
Affiliated Faculty, Robert Wood Johnson Clinical Scholars Program University of Michigan	July 2000 - June 2004
Assistant Professor in Pediatrics and Communicable Diseases and Internal Medicine University of Michigan	February 2002 - August 2006
Affiliated Faculty, National Poverty Center, Gerald R. Ford School of Public Policy University of Michigan	July 2003 -
Assistant Professor of Public Policy, Gerald R. Ford School of Public Policy University of Michigan	January 2004 - September 2006
Core Faculty, Robert Wood Johnson Clinical Scholars Program University of Michigan	July 2004 -
Associate Professor of Pediatrics and Communicable Diseases, Internal Medicine, and Public Policy University of Michigan	September 2006 - August 2013
Professor of Pediatrics and Communicable Diseases, Internal Medicine, and Public Policy University of Michigan	September 2013 -
Professor of Health Management and Policy School of Public Health, University of Michigan	January 2014 -

ACADEMIC ADMINISTRATIVE APPOINTMENTS

Co-Director, Pediatric Health Services Research Fellowship Program, Division of General Pediatrics, University of Michigan	July 2003 - June 2006
Co-Director, Resident Elective in Pediatric Health Services Research for Under-represented Minorities, Division of General Pediatrics, University of Michigan	July 2003 - June 2005
Director, Resident Elective in Pediatric Health Services Research for Under-represented Minorities, Division of General Pediatrics, University of Michigan	July 2005 -
Director, Fellowship Program in Pediatric Health Services Research, Division of General Pediatrics, University of Michigan	July 2006 -
Associate Director, Robert Wood Johnson Clinical Scholars Program, University of Michigan	July 2007 - June 2008
Co-Director, Robert Wood Johnson Foundation Clinical Scholars Program, University of Michigan	July 2008 -
Co-Director, Child Health Initiative Working Group, Michigan Institute for Clinical & Health Research (CTSA), University of Michigan	May 2011 - Sep 2011
Director, Child Health Initiatives Working Group, Michigan Institute for Clinical & Health Research (CTSA), University of Michigan	Sep 2011 - March 2013
Associate Director, Michigan Institute for Clinical & Health Research (CTSA), University of Michigan	Jan 2012 - March 2013
Faculty Director, Path of Excellence in Health Policy—Programs, Systems, and Economics, University of Michigan Medical School	November 2014 -
Director, Communities Engagement Core and Participant Recruitment Core, Michigan Institute for Clinical & Health Research (MICHR)	Jan 2015 -
Deputy Director, Institute for Healthcare Policy and Innovation, University of Michigan	May 2015 -

CLINICAL/HOSPITAL APPOINTMENTS

Clinical Instructor in Pediatrics and Internal Medicine, Harvard Medical School	June 1994 - June 1998
Clinical Instructor in Pediatrics and Internal Medicine, University of Chicago, Pritzker School of Medicine	July 1998 - June 2000
Staff Physician in Pediatrics and Communicable Diseases and Internal Medicine, University of Michigan Health System	July 2000 -

PUBLIC HEALTH / HEALTH POLICY APPOINTMENTS

Chief Medical Executive, Department of Community Health and Department of Health and Human Services, State of Michigan	March 2013 - April 2015

GRANT SUPPORT

Current

Principal Investigator: *National Voices Project*
W.K. Kellogg Foundation
Total cost: $2,135,229. July 2011 - June 2016.

Principal Investigator: *C.S. Mott Children's Hospital National Poll on Children's Health*
University of Michigan Health System
Total cost: $1,868,800. July 2010 - June 2016.

Principal Investigator: *Health Homes Project – Planning and Evaluation*
Michigan Department of Health and Human Services
Total cost: $272,000. May 2015 - September 2016.

Co-Investigator (PI: G Mashour): *Michigan Institute for Clinical and Health Research*
NIH / National Center for Advancing Translational Science
Total cost: $48,788,667. June 2012 - May 2017.

Recent

Principal Investigator: *Pediatric Health Services Research Training* (T32)
Eunice Kennedy Shriver National Institute for Child Health and Human Development
Total cost: $1,271,100. May 2010 - June 2015.

Principal Investigator: *Coursera Initiative: Understanding and Improving the US Healthcare System.*
University of Michigan Medical School.
Total cost: $10,000. January 2013 - December 2013.

Principal Investigator: *The Michigan Child Health Research Priorities (M-CHRP) Project*
Department of Pediatrics and Communicable Diseases
Total cost: $20,000. February 2012 - February 2013.

Principal Investigator: *Economics of Vaccines - Tracking Vaccines under Development to Determine Cost Drivers of the Vaccine Development and Approval Process*
Centers for Disease Control and Prevention
Total cost: $498,038. September 2009 - September 2011.

Principal Investigator: *Voices National Poll*
W.K. Kellogg Foundation
Total cost: $100,000. April 2010 - September 2010.

Principal Investigator: *Innovation Bridge – Linking Biotech Breakthroughs to Emerging Vaccine Manufacturers*
Bill and Melinda Gates Foundation
Total cost: $100,000. October 2008 - September 2009.

Principal Investigator: *Using MEPS Data to Inform Public-Plan Consumerism*
Agency for Healthcare Research and Quality
Total cost: $99,999. July 2007 - June 2008.

Principal Investigator: *Insurance Coverage of Child, Adolescent, and Adult Vaccines*
Partnership for Prevention
Total cost: $124,995. May 2006 - October 2007.

Principal Investigator: *Health Tracking*
Center for Studying Health System Change
Total cost: $97,171. November 2006 - December 2007.

Principal Investigator: *Future Costs of Childhood Obesity: Estimates and Implications*
United States Department of Agriculture
Total cost: $150,000. October 2004 - September 2006.

Principal Investigator: *Market Forces or Misinformation? Exploring the Link Between Self-Insuring Employers and Underinsurance*
Robert Wood Johnson Foundation Generalist Physician Faculty Scholars Program
Total cost: $299,769. July 2002 - June 2006.

Principal Investigator: *How Adult Diabetes Interventions Affect Children*
Blue Cross Blue Shield of Michigan Foundation
Total cost: $10,000. September 2005 - June 2006.

Principal Investigator: *Summer Workshop in Michigan Medicaid Research*
National Poverty Center
Total cost: $10,000. May 2005 - April 2006.

Principal Investigator: *Increasing Costs of Public-Sector Purchase of Childhood Vaccines*
Centers for Disease Control and Prevention.
Total cost: $200,693. September 2001 - September 2003.

Principal Investigator: *Evaluation of the Etiologies of Transitions in Children's Insurance Status and Effects on Healthcare Utilization and Expenditures*
Economic Research Initiative on the Uninsured (Robert Wood Johnson Foundation)
Total cost: $63,961. April 2003 - December 2004.

Co-Investigator: *Variation in Immunization Practices*
(PI: Gary L. Freed, MD, MPH)
Centers for Disease Control and Prevention
Total cost: $1,400,000. September 2004 - October 2013.

Co-Investigator: *BMI2 – Brief Motivational Interviewing to Reduce Child BMI*
(PI: Kenneth Resnicow, PhD)
Eunice Kennedy Shriver National Institute for Child Health and Human Development
Total cost: $3,416,177. April 2008–June 2013.

Co-Investigator: *Mobilizing Peer Support for Effective Congestive Heart Failure Self-Management*
(PI: Michele Heisler, MD, MPA)
National Heart, Lung, and Blood Institute
Total cost: $2,018,444. July 2006 - June 2011.

Co-Investigator and Faculty Mentor: *OB CARES: The Obstetric Clinics and Resources Study*
(PI: Christie Lancaster, MD, MSc)
Michigan Institute for Clinical & Health Research
Total cost: $4,644. February 2010 - June 2011.

Co-Investigator: *Pediatric and Managed Care Issues—Medicaid*
(PI: Gary L. Freed)
State of Michigan Department of Community Health
Total cost: $1,087,676. October 2005 - September 2006.

Co-Investigator: *Enhancing Private Provider Immunization Recall*
(PI: Kevin J. Dombkowski, DrPH)
Centers for Disease Control and Prevention
Total cost: $600,000. October 2006 – November 2009.

Co-Investigator and Faculty Mentor: *A National Study of Health Care Among Foster Children*
(PI: Sandra H. Jee, MD, MPH)
Ambulatory Pediatric Association
Total cost: $10,000. July 2003 – June 2004.

Co-Investigator and Faculty Mentor: *Healthcare Expenditures and Utilization Among Overweight Youth*
(PI: Iris R. Mabry, MD, MPH)
National Poverty Center
Total cost: $9,640. July 2003 – June 2004.

HONORS AND AWARDS

National Scholar, Swarthmore College	1985 - 1989
Garrigues Music Scholar, Swarthmore College	1987 - 1989
Ivy Award (for contributions to the college community), Swarthmore College	1989
Phi Beta Kappa, Swarthmore College chapter	1989
Paul Dudley White Fellowship in International Health, Harvard Medical School	1991, 1993
Pediatric Prize, New England Pediatric Society	1994
Arnold Dunn Award (for compassionate patient care), Brigham and Women's Hospital	1995
Irving B. Harris Fellow in Child Policy, University of Chicago	1999 - 2000
Outstanding Educator, Division of General Pediatrics, University of Michigan	2001
Young Investigator Award in Clinical and Health Services Research, Department of Pediatrics, University of Michigan	2001
Milton W. Hamolsky Junior Faculty Award, Society of General Internal Medicine, annual national meeting	2002
Outstanding Abstract, Academy of Health Services Research and Health Policy, annual national meeting	2002
Young Investigator Award in Clinical Research, Department of Pediatrics, University of Michigan	2003
Teaching Honor Roll, Gerald R. Ford School of Public Policy, University of Michigan	2004 - 2006, 2008, 2010, 2012, 2013, 2015
Token of Appreciation from Medical Students, University of Michigan Medical School	2007, 2009
National Nemours Award in Child Health Services Research	2007
Featured Vaccinologist, *Human Vaccines*	2010
Associate Chair for Research Award, Department of Pediatrics and Communicable Diseases, to support *The Michigan Child Health Research Priorities (M-CHRP) Project*	2012
Distinguished Mentor Award, Michigan Institute of Clinical and Health Research, University of Michigan	2012
Mentor Recognition for Fellow's Research Award presented to Stephen W. Patrick, Ambulatory Pediatric Association	2012
Principal Investigator, "WellSpringboard" – First Place Winner in Patient-Centered Outcomes Research Institute Challenge Initiative	2013
Principal Investigator, "WellSpringboard" – Second Place Winner in Patient-Centered Outcomes Research Institute Matchmaking App Challenge	2014

Snyder Memorial Lecturer in Medicine and the Humanities, Swarthmore College, Swarthmore, PA	2014
Visiting Professor, Royal Children's Hospital, Melbourne, Australia	2014
Inaugural Visiting Professor in Internal Medicine and Pediatrics, Children's Hospital and Brigham & Women's Hospital, Harvard Medical School, Boston, MA	2015
Visiting Professor, PolicyLab, Children's Hospital of Philadelphia Philadelphia, PA	2015
Regents' Award for Distinguished Public Service, University of Michigan	2015

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

Society of General Internal Medicine	1998 -
Society for Medical Decision-Making	1999 -
Ambulatory Pediatric Association / Academic Pediatric Association	2000 -
Association of Teachers of Preventive Medicine	2001 -
AcademyHealth (formerly Association of Health Services Research and Health Policy)	2001 -
American College of Physicians / American Society of Internal Medicine	2002 -
Society for Pediatric Research (elected)	2004 -

SCIENTIFIC ACTIVITIES

Chair, Planning Committee for the Robert Wood Johnson Clinical Scholars Program annual Health Economics Symposium	2000
Peer Reviewer, *Journal of the Ambulatory Pediatric Association/ Ambulatory Pediatrics/Academic Pediatrics*	2000 -
Peer Reviewer, *Journal of General Internal Medicine*	2000 -
Peer Reviewer, *Up-To-Date*	2000 - 2003, 2010
Peer Reviewer, *Archives of Pediatric and Adolescent Medicine / JAMA-Pediatrics*	2001 -
Peer Reviewer, *JAMA*	2001 -
Peer Reviewer, *Journal of Health Policy, Politics, and Law*	2001 -
Peer Reviewer, *Annals of Internal Medicine*	2002 -
Peer Reviewer, *American Journal of Managed Care*	2003 -
Peer Reviewer, National Poverty Center grants program	2003 - 2006
Member, Editorial Board, *Ambulatory Pediatrics*	2005 - 2007
Peer Reviewer, Ambulatory Pediatric Association Young Investigators Grants Program	2005 - 2007
Peer Reviewer, *Journal of Policy and Management*	2005 -
Peer Reviewer, *Health Services Research*	2005 -
Peer Reviewer, *Vaccine*	2005 -
Lead Author, Guidelines for Prevention of Childhood Obesity, American Medical Association and American Academy of	2005 - 2007

Pediatrics	
Member, Influenza Vaccine Group, American Heart Association	2006 -
Peer Reviewer, *Health Affairs*	2006 -
Study Section Member – Health, Behavior, and Context Subcommittee, National Institutes of Health	2006
Senior Health Researcher, Center for Studying Health System Change, Washington, DC	2006 - 2007
Member, Editorial Board, *Archives of Pediatrics and Adolescent Medicine / JAMA-Pediatrics*	2007 - 2013
Founding Director, C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan	2007 -
Peer Reviewer, *New England Journal of Medicine*	2008 -
Founding Web Editor, *Archives of Pediatrics and Adolescent Medicine / JAMA-Pediatrics*	2008 - 2013
Study Section Member – Disease, Disability, and Injury Prevention and Control Special Emphasis Panel, Centers for Disease Control and Prevention	2009
Member, Expert Advisory Committee, Measuring Pediatric Access to Specialty Health Care by Insurance Status (PI: Karin Rhodes, MD, MS; funded by State of Illinois)	2009 - 2012
Co-Guest Editor, Special Issue on "Bridging the Gap Between Research and Health Policy," *HSR – Health Services Research*	2010 - 2012
Chair, National Center for Chronic Disease Prevention and Health Promotion Special Emphasis Panel, Centers for Disease Control and Prevention	2011
Member, Special Advisory Panel to the Director of the National Center for Advancing Translational Sciences, National Institutes of Health	2013 - 2014
Member, Special Review Panel, National Institute of Diabetes and and Digestive and Kidney Diseases, National Institutes of Health	2015

TEACHING ACTIVITIES

Intramural Invited Presentations (selected)

"Teen problem-solving and its impact on tobacco use." Grand Rounds, Department of Pediatrics, Pritzker School of Medicine, University of Chicago.	1999
Health Services Research Seminar (semi-annually), Child Health Evaluation and Research (CHEAR) Unit, Division of General Pediatrics, University of Michigan	2000 -
"Are parental depressive symptoms linked to underimmunization of young children?" Grand Rounds, Department of Pediatrics, University of Michigan	2001
"Smallpox: new challenges from an old foe," Grand Rounds, Department of Pediatrics, University of Michigan	2002

"The Medicare Prescription Drug Improvement and Modernization Act of 2003: Policy Implications." Faculty panelist, University of Michigan.	2004
"Obesity trends during childhood and adolescence: insights for clinicians and policymakers", Grand Rounds, Department of Pediatrics, University of Michigan	2005
"Obesity trends during childhood and adolescence: findings from the PSID-CDS", invited speaker, Series on the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan	2005
"Are the best vaccines still ahead, or already behind us? Costs, contradictions, and controversies in childhood immunization," Grand Rounds, Department of Pediatrics and Communicable Diseases	2008
"Health and Health Care in Michigan," Seminars in Medicine for M3 curriculum, University of Michigan Medical School	2008
"Health Care Reform Proposals of the 2008 Candidates for President," Seminars in Medicine for M3 curriculum, University of Michigan Medical School	2008
"Health Care Platforms of the 2008 Presidential Candidates," expert panel convened by the Roosevelt Institution, University of Michigan	2008
"Policy Advice for the Newly Elected President," expert panel convened by Dean Susan Collins of the Gerald R. Ford School of Public Policy, University of Michigan	2008
"When Families Refuse Vaccines," presentation to the Health Sciences Scholars Program for Undergraduates, University of Michigan	2009
"Dilemmas in Development and Delivery of Vaccines," Bioethics Grand Rounds, University of Michigan Health System.	2009
"Health Care Reform in the US Under President Obama and a Democratic Congress," Special Guest Lecturer, Program in Public Policy and International Affairs, University of Michigan	2009
"Fresh Challenges in Development and Delivery of Vaccines," Grand Rounds, Department of Pediatrics and Communicable Diseases, University of Michigan	2009
"Health Care Reform: Proposals, Politics, and Prospects," Special Panel Symposium, Gerald R. Ford School of Public Policy, University of Michigan	2009
"What Type of Health Care Reform Would be Best for Primary Care?" Featured Speaker for Primary Care Week, University of Michigan Medical School	2009
"Financing Development of Drugs and Vaccines for Neglected Diseases," Faculty Commentator, Gerald R. Ford School of Public Policy, University of Michigan	2010
"Making Sense of Health Policy Reform: Latest Events, Greatest Hopes," Grand Rounds, Department of Pediatrics and	2010

Communicable Diseases

"(False) Summits and (True) Profits: Health Care Reform in the United States," Grand Rounds, Department of Internal Medicine	2010
"Public Preferences for Participation in Medical Research," Grand Rounds, Department of Pediatrics and Communicable Diseases	2011
"Quality of Health Care and the Affordable Care Act," guest speaker in Health Care Reform in the U.S., taught by Jill Horwitz at University of Michigan Law School	2011
"Policy Analysis vs Policy Advocacy," guest speaker in HMP 615-Introduction to Public Health Policy at University of Michigan School of Public Health	2011
"Presidents, Precedents, and Healthcare Reform in the United States," Guest Lecturer in History 234 for undergraduate students at University of Michigan; lead faculty: Joel Howell, MD, PhD	2012 -
"Teen Pregnancy, Infant Mortality and the Public Voice: New Approaches to Old Problems at the Nexus of Maternal and Child Health," Grand Rounds, Department of Obstetrics and Gynecology, University of Michigan Health System	2012
"Priorities for the Health and Healthcare of Michigan's Children: Perspectives from Lansing," Grand Rounds, Department of Pediatrics and Communicable Diseases, University of Michigan Health System	2013
"Presidential Politics for 2016: How Will Health Policy Play a Role?" Grand Rounds, Department of Anesthesiology, University of Michigan Health System	2015
"Health Policymaking in Michigan: a View from the Inside," Grand Rounds, Department of Pediatrics and Communicable Diseases, University of Michigan Health System	2015

Courses and Seminars

Primary Care Internal Medicine weekly morning report, Brigham & Women's Hospital, Boston, Massachusetts	1997
Internal Medicine resident journal club, faculty lead, University of Chicago	1999 - 2000
"Introduction to the Patient: Health Policy," small group section leader, Year 2 curriculum, University of Michigan Medical School	2001
"Medical Decision-Making," small group section leader, Year 2 curriculum, University of Michigan Medical School	2001 - 2003
Public Policy 740, Gerald R. Ford School of Public Policy: "Issues in Child and Family Health Policy," a full-semester, 3-credit course for master's level students	2002 - 2006
"Threats to Successes in Child Health Policy in the United States," instructor for health policy module in the Public Policy and International Affairs program for minority undergraduates at Gerald R. Ford School of Public Policy, University of	2003 - 2004, 2008

Michigan	
"Health Economics and Health Policy," lead instructor for segment of Clinical Foundations of Medicine course, Years 1, 2, and 3 curriculum, University of Michigan Medical School	2006 -
Public Policy 700, Gerald R. Ford School of Public Policy: "Independent Study" for master's level students as 3-credit, full-semester course	2006 -
Public Policy 768, Gerald R. Ford School of Public Policy: "Efforts at Health Care Reform in the United States – Past, Present, and Future," a full-semester, 3-credit course for master's-level students	2008, 2010, 2012, 2013
Public Policy 495, Gerald R. Ford School of Public Policy: "Principles and Realities of Health Care Reform," a full-semester, 3-credit course for upper-level undergraduate students	2008
Health and Health Care Research 740 and 741, Rackham School of Graduate Studies, "Research on Organization, Financing, and Delivery of Health Care," two full-semester 3-credit courses for physician-investigators-in-training	2008 -
"Containing Health Care Costs," originator and lead instructor for annual M2 elective course, 6 hours of class time	2010 - 2014
"History of Health Care Reform in the United States," instructor for health policy module in the Public Policy and International Affairs program for minority undergraduates at Gerald R. Ford School of Public Policy, University of Michigan	2011, 2013, 2015
"Understanding and Improving the US Healthcare System," lead developer and lead faculty for massive open online course provided on the global Coursera platform	2013 -
Public Policy 750, Gerald R. Ford School of Public Policy: "Medicaid as an Innovative and Challenging Safety Net," a half-semester, 1-credit course for master's-level students	2015

Clinical Mentorship

Internal Medicine & Pediatrics residency program, weekly resident continuity clinic preceptor at Canton Health Center, University of Michigan	July 2000 - December 2006
Internal Medicine & Pediatrics residency program, *ad hoc* resident continuity clinic preceptor at Canton Health Center, University of Michigan	January 2007 -

Research Mentorship

Internal Medicine & Pediatrics residency program, resident research mentor, University of Michigan (1-3 residents mentored each academic year)	July 2000 -
Core Faculty, Pediatric Health Services Research Fellowship Program, Division of General Pediatrics, University of Michigan	July 2000 -

(1-4 fellows mentored each academic year)

Affiliated Faculty, Robert Wood Johnson Clinical Scholars Program, University of Michigan (1-2 fellows mentored each academic year)	July 2000 - June 2004
Core Faculty, Robert Wood Johnson Foundation Clinical Scholars Program, University of Michigan (3-10 fellows mentored each academic year)	July 2004 -

COMMITTEE AND ADMINISTRATIVE SERVICE

Admissions Committee, Harvard Medical School	1991 - 1992
Residency Selection Committee, Harvard Combined Program in Medicine and Pediatrics	1994 - 1998
Member, Residency Selection Committee, Departments of Pediatrics and Communicable Diseases and Internal Medicine, University of Michigan	2002 - 2006
Member, Resident Research Committee, Department of Pediatrics, University of Michigan	2003 - 2006
Member of Judging Panel, Annual Resident Research Day, St. Joseph Mercy Hospital, Ann Arbor, Michigan	2004 - 2005
Member, 2006 Annual Meeting Planning Committee, AcademyHealth	2005 - 2006
Lead Faculty Advisor, Medical School and Gerald R. Ford School of Public Policy Dual Degree MD/MPP Program, University of Michigan	2006 -
Pediatric Clinical Research Committee, University of Michigan	2008
Member, External Planning Committee, Annual National Immunization Conference	2008 - 2009
Faculty Lead, Medical School coursework in Health Policy and Health Economics, M1-M3 years, University of Michigan	2008 -
Member, Instructional Track Appointments, Promotions, and Tenure Committee, Department of Pediatrics and Communicable Diseases, University of Michigan	2010 - 2014
Member, Grand Rounds Committee, Department of Pediatrics and Communicable Diseases, University of Michigan	2010 - 2012
Member, Child Health Initiative Working Group, Michigan Institute for Clinical and Health Research (MICHR), University of Michigan	2010 - 2011
Member, Search Committee, Founding Director of the Institute of Healthcare Policy and Innovation, University of Michigan	2010 - 2011
Member, Harvard Medical School Alumni Council	2011 - 2014
Co-Chair, Inaugural Events for the Institute for Healthcare Policy and Innovation, University of Michigan	2012 - 2013
Member, Research and Policy Committee, Center for Healthcare Research and Transformation	2012 -
Member, Selection Committee for the Michigan Institute of Clinical and Health Research (MICHR) Mentor Award	2013 -
Member, Institute Leadership Team, Institute for Healthcare Policy	2013 -

and Innovation, University of Michigan

Member, Search Committee for Associate Dean for Clinical and Translational Research, University of Michigan — 2015

EXTRAMURAL INVITED PRESENTATIONS

"Methodological issues in the application of quality-adjusted life-years to interventions regarding children." Presentation at Environmental Protection Agency of white paper submitted as background for the *Child Health Evaluation Handbook,* Washington, DC. — June 2001

"Vaccine shortages and vaccine economics." Presented at the National Immunization Program, Centers for Disease Control and Prevention, Atlanta, GA. — March 2002

"Increasing costs of public-sector purchase of childhood vaccines." Presented at the National Immunization Program, Centers for Disease Control and Prevention, Atlanta, GA. — March 2003

"Insurance transitions for children and adults." Grand Rounds, Harvard Combined Program in Internal Medicine and Pediatrics, Boston, MA. — June 2003

"Adult vaccine benefit coverage in employer-sponsored health plans." Presented at the National Immunization Program, Centers for Disease Control and Prevention, Atlanta, GA. — March 2004

"Insurance coverage of vaccines." Presented to the National Vaccine Advisory Committee, Washington, DC. — February 2005

"Considering the costs of vaccines." Presented at the National Immunization Program, Centers for Disease Control and Prevention, Atlanta, GA. — March 2005

"Old challenges, new opportunities in insurance coverage for adult vaccines." Presented to the National Vaccine Advisory Committee, Washington, DC. — November 2005

"Addressing children's underinsurance through policy-relevant research." Presented within Pediatric Academic Societies Topic Symposium, "From Health Services Research to Public Policy," at annual PAS meeting, San Francisco, CA. — May 2006

"Counting the costs of childhood obesity." Grand Rounds, Department of Pediatrics, Beaumont Hospital, Royal Oak, MI. — October 2006

"Vaccine financing strategies and industry research opportunities: the global perspective." Plenary presentation at the World Vaccine Congress, Washington, DC. — April 2009

"Innovation Bridge: New vaccines, new partnerships." Plenary presentation at the Developing Country Vaccine Manufacturers Network 10th annual meeting, Beijing, China. — September 2009

"Health care reform in the United States." Featured speaker at town hall meeting, Northville, MI. — October 2009

"Opportunities for health care reform during the Obama — November 2009

administration." Featured speaker at quarterly meeting of the Washtenaw County Medical Society, Ann Arbor, MI.	
"A critical examination of legislative options for health care reform." Department of Internal Medicine Journal Club, Saint Joseph Mercy Health System, Ann Arbor, MI.	December 2009
"Making sense of health policy reform." Grand Rounds, Department of Internal Medicine, Saint Joseph Mercy Hospital, Ann Arbor, MI.	March 2010
"Fresh challenges in the development and delivery of vaccines." Grand Rounds, Department of Pediatrics, Beaumont Hospital, Royal Oak, MI.	June 2010
"Illuminating the global R&D pipeline for prophylactic vaccines." Featured speaker, special presentation, International AIDS Vaccine Initiative, New York, NY.	December 2010
"Understanding challenges and opportunities in research and development of prophylactic vaccines." Featured guest lecturer, Bloomberg School of Public Health, The Johns Hopkins University, Baltimore, MD.	March 2011
"Characterizing and understanding the R&D pipeline for prophylactic vaccines." Presented at National Center for Influenza and Respiratory Diseases, Centers for Disease Control and Prevention, Atlanta, GA.	April 2011
"National Voices Project." Featured panel presenter at America Healing national meeting of grantees of the W.K. Kellogg Foundation, Asheville, NC.	May 2011
"Failings in pediatrics (and what health services research can do about them)." Featured faculty presenter, 1st Annual Child Health Services Research Symposium, Indiana University Purdue University at Indianapolis, Indianapolis, IN.	September 2011
"Addressing significant unmet needs through world class vaccine pipelines." Featured plenary speaker, World Vaccine Congress, Lyon, France.	October 2011
"Challenges and opportunities in research, development and financing of prophylactic vaccines." Featured guest lecturer, Bloomberg School of Public Health, The Johns Hopkins University, Baltimore, MD.	February 2012
"Challenges and successes in new vaccine development for adults." Grand Rounds speaker, Saint John's Hospital, Detroit, MI.	October 2012
"National Voices Project." Featured panel presenter at America Healing national meeting of grantees of the W.K. Kellogg Foundation, Asheville, NC.	April 2013
"Clinical implications of healthcare reform for academic medical centers." Association of Academic Internal Medicine annual meeting, New Orleans, LA.	October 2013
"Making progress but losing ground: the quicksand of infant mortality in the United States." Snyder Memorial Lecture, Swarthmore College, Swarthmore, PA.	March 2014
"The Million Hearts Initiative: Can the Affordable Care Act	May 2014

deliver?" Million Hearts Initiative Workshop, Okemos, MI.

"What if we asked the public?" Grand Rounds presentation, Royal Children's Hospital, Melbourne, Australia. — August 2014

"Infant mortality as a state health priority and key index of population health in Michigan." Health Policy guest lecturer, Oakland University William Beaumont Medical School, Troy, MI. — October 2014

"Health services research and impact of the field of infant mortality research." Keynote speaker, annual meeting of the Midwest Society of Pediatric Research, Cleveland Clinic, Cleveland, OH. — October 2014

"What if we asked the public? Measuring attitudes, influencing policy." Grand Rounds presentation, Children's Hospital, Boston, MA. — January 2015

"From affecting to effecting health policy: focusing on population health as a physician, researcher, and government official." Grand Rounds presentation, Brigham & Women's Hospital, Boston, MA. — January 2015

"Importance of addressing neonatal abstinence syndrome in Michigan." Keynote address for statewide symposium: NAS—Primary and Secondary Prevention; a Team Approach. Okemos, MI. — May 2015

"In the belly of the policy beast: Data, debate, and the value of the academic voice." PolicyLab Seminar presentation, Children's Hospital of Philadelphia, Philadelphia, PA. — May 2015

"MHA Keystone Pain Management: Why, who, what, how?" Keynote address, Michigan Health and Hospitals Association Keystone Symposium, Dearborn, MI. — May 2015

SELECTED OTHER PRESENTATIONS

"Parental depression as a determinant of undervaccination among preschool-aged children." Plenary presentation, Robert Wood Johnson Clinical Scholars Program annual meeting, Ft. Lauderdale, FL. — November 2000

"The future of childhood vaccine costs in the public sector." Platform presentation, Robert Wood Johnson Clinical Scholars Program annual meeting, Ft. Lauderdale, FL. — November 2001

"Cost-effectiveness analysis of immunization strategies regarding smallpox bioterrorism." Platform presentation, Society of General Internal Medicine annual meeting, Atlanta, GA. — May 2002

"State-level demographic, economic, and political factors associated with children's vaccination rates." Oral presentation, AcademyHealth annual meeting, Washington, D.C. — June 2002

"Factors associated with transitions in children's health insurance." Platform presentation, Pediatric Academic Societies annual meeting, Seattle, WA. — May 2003

"Projected economic impact of childhood vaccine shortages." — May 2003

Platform presentation, Pediatric Academic Societies annual meeting, Seattle, WA.

"Decline in varicella-related hospitalizations and expenditures after introduction of varicella vaccine." Platform presentation, Pediatric Academic Societies annual meeting, San Francisco, CA.	May 2004
"State school and daycare entry laws associated with higher varicella immunization rates." Platform presentation, Pediatric Academic Societies annual meeting, San Francisco, CA.	May 2004
"Healthcare utilization and expenditures associated with adults' transitions in health insurance status." Platform presentation, Society of General Internal Medicine annual meeting, Chicago, IL.	May 2004
"Preferences and tradeoffs for preventive services in health plans." Platform presentation, Society of General Internal Medicine annual meeting, Chicago, IL.	May 2004
"Attitudes of medical subspecialists regarding influenza vaccine." Oral presentation, National Immunization Conference, Nashville, TN.	March 2004
"Benefits coverage for adult vaccines in employer-sponsored health plans." Oral presentation, National Immunization Conference, Nashville, TN.	March 2004
"Assessing the potential effect of programmatic changes in Medicaid and SCHIP on children's uninsured rates." Research panel presentation at the 2005 annual Child Health Services Research Meeting of AcademyHealth, Washington, D.C.	June 2005
"How many successes and how many failures? Vaccine development in the United States, 1995-2008." Oral presentation, National Immunization Conference, Dallas, TX.	March 2009
"How many successes and how many failures? Vaccine development in the United States, 1995-2008." Oral symposium presentation, Pediatric Academic Societies annual meeting, Baltimore, MD.	May 2009
"Implications of national health care reform for the University of Michigan Health System." Presentation to the Regents of the University of Michigan.	May 2010
"Implications of racial/ethnic diversity for health in the United States—2030." Featured speaker, Society 2030 meeting, Institute for Social Research, University of Michigan.	June 2011
"Focusing on passion, difference, and service." Keynote presentation at graduation of the Michigan Health Sciences Summer Institute / Undergraduate Research Academy, University of Michigan.	August 2014

BIBLIOGRAPHY

Peer-Reviewed Publications

1) Davis FB, Blas SD, **Davis MM**, Davis PJ. Analogue-specific action *in vitro* of atrial natriuretic factor on human red blood cell Ca2+-ATPase activity. *Hypertension.* 1988;12:428-433.
2) **Davis MM,** Andreae M, Freed GL. Physicians' early challenges related to the pneumococcal conjugate vaccine. *Ambul Pediatr* 2001;1:302-305.
3) Kemper AR, **Davis MM,** Freed GL. Expected adverse events in a smallpox vaccination campaign for children and young adults. *Eff Clin Pract* 2002;5:84-90.
4) Freed GL, **Davis MM,** Andreae MC, Bass S, Weinblatt H. Reimbursement for Prevnar: A modern-day version of Hercules and the Hydra. *Pediatrics.* 2002;110:399-400.
5) **Davis MM,** McMahon SR, Santoli JM, Schwartz B, Clark SJ. A national survey of physician practices regarding influenza vaccine. *J Gen Intern Med* 2002;17:670-676.
6) Cabana MD, Aiken KD, **Davis MM,** Freed GL, Clark SJ. Combined effect of changes in guideline recommendations and immunization financing policy on nursery immunizations. *Ambul Pediatr* 2002;2:367-374.
7) **Davis MM,** Zimmerman JL, Wheeler JRC, Freed GL. The costs of childhood vaccine purchase in the public sector: past trends, future expectations. *Am J Public Health.* 2002;92:1982-1987.
8) Freed GL, **Davis MM,** Clark SJ. Variation in public and private supply of pneumococcal conjugate vaccine during a shortage. *JAMA.* 2003;289:575-578.
9) Kemper AR, **Davis MM.** Under scrutiny: smallpox vaccine recommendations. *Expert Opin Pharmacother.* 2003;4:1207-1214.
10) **Davis MM,** Ndiaye SM, Freed GL, Kim CS, Clark SJ. Influence of insurance status and vaccine cost on physicians' administration of pneumococcal conjugate vaccine. *Pediatrics.* 2003;112:521-526.
11) **Davis MM,** Ndiaye SM, Freed GL, Clark SJ. One-year uptake of pneumococcal conjugate vaccine: a national survey of family physicians and pediatricians. *J Am Board Fam Pract.* 2003;16:363-371.
12) Cabana MD, Rand C, Slish K, Nan B, **Davis MM,** Clark N. Pediatrician self-efficacy for counseling parents of asthmatic children to quit smoking. *Pediatrics.* 2004;113:78-81.
13) **Davis MM,** Wortley PM, Ndiaye SM, Woods MG, Clark SJ. Availability of influenza vaccine among medical subspecialty practices: a national survey. *Am J Prev Med.* 2004;26:307-310.
14) Pollack HA, Dombkowski KJ, Zimmerman JB, **Davis MM,** Cowan AE, Wheeler JRC, Hillemeier AC, Freed GL. Emergency department use among Michigan children with special health care needs: an introductory study. *Health Serv Res.* 2004;39:665-692.
15) Aiken KD, Freed GL, **Davis MM.** When insurance status isn't static: insurance transitions for low-income children and implications for health and health care. *Ambul Pediatr* 2004;4:237-243.
16) Flynn HA, **Davis MM,** Marcus SM, Cunningham R, Blow FC. Rates of maternal depression in pediatric emergency department and relationship to child service utilization. *Gen Hosp Psychiatry.* 2004;26:316-322.
17) **Davis MM,** Upston AM. State legislator gender and other characteristics associated with sponsorship of child health bills. *Ambul Pediatr* 2004;4:295-302.
18) Jee SH, **Davis MM.** Factors associated with variations in parental social support in primary care pediatric settings. *Ambul Pediatr* 2004;4:316-322.
19) **Davis MM,** Patel MS, Gebremariam A. Decline in varicella-related hospitalizations and expenditures for children and adults after introduction of varicella vaccine in the United States. *Pediatrics.* 2004;114:786-792.
20) Odetola O, Clark SJ, Freed GL, Bratton SL, **Davis MM.** A national survey of the distribution of pediatric critical care resources in the United States. *Pediatrics.* 2005;115:382-386.
21) Kemper AR, Cowan AE, Ching PL, **Davis MM,** Kennedy E, Clark SJ, Freed GL. Hospital decision-making regarding the smallpox pre-event vaccination program. *Biosecur Bioterr.* 2005;3:23-30.

22) **Davis MM,** Gaglia M. Association of daycare and school entry vaccination requirements with varicella immunization rates. *Vaccine.* 2005;23:3053-3060.
23) **Davis MM,** Fant KE. Coverage of vaccines in private health plans: what does the public prefer? *Health Aff.* 2005;24:770-779.
24) **Davis MM,** Halasyamani LK, Sneller V-P, Bishop KR, Clark SJ. Provider response to different formats of the adult immunization schedule. *Am J Prev Med.* 2005;29:34-40.
25) Odetola O, Miller W, **Davis M,** Bratton S. The relationship between the location of pediatric intensive care unit facilities and child death from trauma: a county-level ecologic study. *J Pediatr.* 2005;147:74-77.
26) Yoon EY, **Davis MM,** Van Cleave J, Maheshwari S, Cabana MD. Factors associated with non-attendance at pediatric subspecialty asthma clinics. *J Asthma.* 2005;42:555-559.
27) Gopal S, **Davis MM.** Improving delivery of influenza vaccine to nonelderly persons with cardiovascular disease, with and without sufficient national supply of vaccine: a decision analysis. *Hum Vaccin.* 2005;1:217-223.
28) Odetola FO, Clark SJ, **Davis MM**. Growth, development and failure to thrive: Factors that underlie the availability of pediatric critical care facilities in the United States. *Pediatr Crit Care Med.* 2006; 7:70-73.
29) **Davis MM,** Slish K, Chao C, Cabana MD. National trends in bariatric surgery, 1996-2002. *Arch Surg.* 2006;141:71-74.
30) Yoon EY, **Davis MM,** El-Essawi H, Cabana MD. FDA labeling status of pediatric medications. *Clin Pediatr (Phila)).* 2006;45:75-78.
31) Lee JM, **Davis MM,** Clark SJ, Hofer TJ, Kemper AR. Estimated cost-effectiveness of growth hormone therapy for idiopathic short stature. *Arch Pediatr Adolesc Med.* 2006; 160:263-269.
32) Patel MS, **Davis MM.** Could a federal program promoting influenza vaccination among elders be cost-effective? *Prev Med.* 2006;42:240-246.
33) Gaglia MA, **Davis MM.** States' emergency orders regarding the 2004-05 influenza vaccine shortage. *Hum Vaccin.* 2006;2:34-37.
34) **Davis MM.** Successes and remaining challenges after 10 years of varicella vaccination in the United States. *Expert Rev Vaccines.* 2006;5:295-302.
35) Cowan AE, Winston CA, **Davis MM,** Wortley PM, Clark SJ. Influenza vaccination status and influenza-related attitudes and practices among US physicians. *Am J Infect Control.* 2006;34:164-169.
36) Jee SH, Barth RP, Szilagyi MA, Szilagyi PG, Aida M, **Davis MM.** Factors associated with chronic conditions among children in foster care. *J Health Care Poor Underserved.* 2006;17:328-341.
37) Kemper AR, Dombkowski KJ, Menon RK, **Davis MM.** Trends in diabetes mellitus among privately insured children, 1998-2002. *Ambul Pediatr.* 2006;6:178-181.
38) Odetola F, Tilford JM, **Davis MM.** Variation in the use of intracranial pressure monitoring and mortality in critically ill children with meningitis in the United States. *Pediatrics.* 2006;117:1893-1900.
39) Flynn HA, Cain SA, O'Mahen HA, **Davis MM.** Detection of maternal alcohol use problems in the pediatric emergency department. *Alcohol Clin Exp Res.* 2006;30:1160-1164.
40) Mmeje O, **Davis MM.** Will coverage for child and adolescent immunizations be mandated in insurance plans in 2006? Lessons learned from the Newborns and Mothers Health Protection Act of 1996. *Pediatrics.* 2006;118:388-392.
41) **Davis MM,** Broder KR, Cowan AE, Mijalski C, Kretsinger K, Stokley S, Clark SJ. Physician attitudes and preferences regarding new combined tetanus-diphtheria-acellular pertussis vaccines for adolescents in the United States. *Amer J Prev Med.* 2006;31:176-180.
42) Patel UD, **Davis MM.** Physicians' attitudes and practices regarding adherence to medical regimens

by patients with chronic illness. *Clin Pediatr (Phila).* 2006;45:439-45.

43) Patel UD, **Davis MM.** Falling into the doughnut hole: drug spending among beneficiaries with end-stage renal disease under Medicare Part D plans. *Am J Nephrol.* 2006; 17: 2546-2553.
44) Gurney JG, McPheeters ML, **Davis MM.** Health conditions and health care utilization among children with and without autism: National Survey of Children's Health. *Arch Pediatr Adolesc Med.* 2006;160:825-830.
45) Dombkowski KJ, **Davis MM,** Cohn L, Clark SJ. Potential for improving influenza vaccination rates among children with asthma. *Arch Pediatr Adolesc Med.* 2006;160:966-971.
46) **Davis MM,** Taubert K, Benin AL, Brown DW, Mensah GA, Baddour LM, Dunbar S, Krumholz HM. Influenza vaccination as secondary prevention for cardiovascular disease. *Circulation.* 2006;114:1549-1553.
47) Van Cleave J, **Davis MM.** Bullying behaviors and children with special health care needs in a national sample. *Pediatrics.* 2006;118:1212-1219.
48) Okumura M, Campbell A, Nasr S, **Davis MM.** Inpatient health care utilization among adult survivors of chronic childhood illnesses in the United States. *Arch Pediatr Adolesc Med.* 2006;160:1054-1060.
49) Lee JM, Okumura M, **Davis MM,** Herman WH, Gurney JG. Prevalence and determinants of insulin resistance among U.S. adolescents: a population based study. *Diabetes Care.* 2006;29:2427–2432.
50) Clark SJ, Adolphe S, **Davis MM,** Cowan AE, Kretsinger K. Attitudes of U.S. obstetricians toward a combined tetanus-diphtheria-acellular pertussis vaccine for adults. *Infect Dis Obstet Gynecol.* 2006;2006:1-5.
51) Odetola FO, Shanley TP, Gurney JG, Clark SJ, Dechert RE, Freed GL, **Davis MM.** Characteristics and outcomes of inter-hospital transfers from Level II to Level I pediatric intensive care units. *Pediatr Crit Care Med.* 2006;7:536-540.
52) Clark SJ, Cowan AE, Stokley S, Bilukha O, **Davis MM.** Physician perspectives to inform a new meningococcal conjugate vaccine (MCV4) recommendation. *J Adolesc Health.* 2006;39:850-855.
53) Dempsey AF, **Davis MM.** Overcoming barriers to adherence to HPV vaccination recommendations. *Am J Manag Care.* 2006;12:S484-S491.
54) Laroche HH, Hofer TP, **Davis MM.** Adult fat intake associated with the presence of children in households: findings from NHANES III. *J Am Board Fam Med.* 2007;20:9-15.
55) **Davis MM,** Patel MS, Halasyamani L. Variation in estimated Medicare prescription drug plan costs and affordability for beneficiaries living in different states. *J Gen Intern Med.* 2007;22:257-263.
56) **Davis MM,** Marin M, Cowan AE, Guris D, Clark SJ. Physician attitudes regarding breakthrough varicella disease and a potential second dose of varicella vaccine. *Pediatrics.* 2007;119:258-264.
57) Lee JM, **Davis MM,** Clark SJ, Kemper AR. Threshold of evaluation for short stature in a pediatric specialty clinic: differences between boys versus girls? *J Pediatr Endocrinol Metab.* 2007; 20:21-26.
58) Woolford SJ, Clark SJ, Lumeng JC, Williams DR, **Davis MM.** Maternal perspectives on growth and nutrition counseling provided at preschool well-child visits. *J Natl Med Assoc.* 2007;99:153-158.
59) **Davis MM,** Halasyamani LK. Conflicting measures of hospital quality: ratings from 'Hospital Compare' versus 'Best Hospitals.' *J Hosp Med.* 2007;2:128-134.
60) **Davis MM,** Kretsinger K, Cowan AE, Stokely S, Clark SJ. New combined tetanus-diphtheria-acellular pertussis vaccines for adults: primary care physician attitudes and preferences. *Hum Vaccin.* 2007; published online, available at: http://www.landesbioscience.com/journals/vaccines/abstract.php?id=4307.
61) Yoon EY, Dombkowski KJ, Rocchini A, Lin JJ, **Davis MM.** Off-label utilization of antihypertensive medications in children. *Ambul Pediatr.* 2007;7:299-303.
62) Woolford S, Clark SJ, Gebremariam A, **Davis MM.** Inpatient hospital charges associated with obesity as a secondary diagnosis in children. *Obesity.* 2007;15:1895-1901.
63) Okumura MJ, McPheeters M, **Davis MM**. State and national estimates of insurance coverage and

health care utilization for adolescents with chronic conditions from the National Survey of Children's Health Survey, 2003. *J Adolesc Health.* 2007;41:343-349.

64) Lee JM, Okumura MJ, Freed GL, Menon RK, **Davis MM.** Trends in hospitalizations for diabetes among children and young adults – United States, 1993-2004. *Diabetes Care.* 2007;30:3035-3039.
65) **Davis MM,** Gance-Cleveland B, Hassink S, Johnson R, Paradis G, Resnicow K. Recommendations for prevention of childhood obesity. *Pediatrics.* 2007;120:S229-S253.
66) Van Cleave J, Heisler M, DeVries JM, Joiner TA, **Davis MM.** Discussion of illness during well-child visits with parents of children with and without special health care needs. *Arch Pediatr Adolesc Med.* 2007;161:1170-1175.
67) Laroche HH, **Davis MM,** Forman J, Palmisano G, Heisler M. What about the children? The experience of families involved in an adult-focused diabetes intervention. *Public Health Nutr.* 2007; published online, available at: http://journals.cambridge.org/download.php?file=%2FPHN%2FS1368980007000791a.pdf&code=1df0b200917a34dd1e3a1a9fe14560df.
68) Odetola FO, Rosenberg AL, **Davis MM,** Clark SJ, Dechert RE, Shanley TP. Do outcomes vary according to the source of admission to the pediatric intensive care unit? *Pediatr Crit Care Med.* 2008;9:20-25.
69) Schilling PL, **Davis MM,** Albanese CT, Dutta S, Morton J. National trends in adolescent bariatric surgical procedures and implications for surgical centers of excellence. *Bull Am Coll Surg.* 2008;206:1-12.
70) Lee JM, **Davis MM,** Menon RK, Freed GL. The geographic distribution of childhood diabetes and obesity to the supply of pediatric endocrinologists in the US. *J Pediatr.* 2008;152;331-336.
71) Woolford SJ, **Davis MM,** Gebremariam A, Strecher V. Physicians' perspectives on increasing the use of BMI charts for young children. *Clin Pediatr (Phila).* 2008;47:573-577.
72) **Davis MM,** Wortley PM, Ndiaye SM, Cowan AE, Osta AD, Clark SJ. Vaccinating high-risk non-elderly adults against influenza: a national survey of subspecialists. *Human Vaccines.* 2008;4:229-233.
73) Zivin K, McCammon RJ, **Davis MM,** Halasyamani LK, Kales HC. Increases in Medicare prescription drug plan costs attributable to psychotropic medications. *Am J Geriatr Psychiatry.* 2008;16:674-685.
74) Dempsey AF, Cowan AE, Stokley S, Messonnier M, Clark SJ, **Davis MM.** The role of economic information in decision-making by the Advisory Committee on Immunization Practices. *Vaccine.* 2008;26:5389-5392.
75) Laroche HH, Heisler M, Forman J, Anderson M, **Davis MM.** When adults with diabetes attempt to drink less soda: resulting adult-child interactions and household changes. *J Natl Med Assoc.* 2008;100:1004-1011.
76) Caskey RN, **Davis MM**. Differences in end-of-life hospital care for children associated with age, transfer status, and insurance coverage for children. *J Hosp Med* 2008;3(5):376-83.
77) Tarini BA, Singer DC, Clark SJ, **Davis MM.** Parental concerns about genetic disease risk: the effects of family history and genetic test results. *Arch Pediatr Adolesc Med.* 2008;162:1079-1083.
78) Harari N, **Davis MM,** Heisler M. Strangers in a strange land: health care experiences for recent Latino immigrants in Midwest communities. *J Health Care Poor Underserved.* 2008;19:1350-1367.
79) **Davis MM,** McGonagle K, Schoeni RF, Stafford F. Relative associations of parental and grandparental obesity with risk of childhood overweight: implications for primary care practice. *J Am Board Fam Med.* 2008;21:549-554.
80) Patel MS, Gebremariam A, **Davis MM**. Herpes zoster-related hospitalizations and expenditures before and after introduction of varicella vaccine in the United States. *Infect Control Hosp Epidemiol* 2008;29:1157-1163.

81) Danziger S, **Davis MM**, Orzol S, Pollack HA. Health insurance and access to care among welfare leavers. *Inquiry.* 2008;45:184-197.
82) Van Cleave J, **Davis MM**. Preventive care utilization among children with and without special health care needs: associations with unmet need. *Ambul Pediatr.* 2008;8:305-311.
83) Okumura MJ, Heisler M, **Davis MM**, Cabana MD, Demonner S, Kerr EA. Comfort of general internists and general pediatricians in providing care for young adults with chronic illnesses of childhood. *J Gen Intern Med.* 2008;23:1621-1627.
84) Hoilette LK, Clark SJ, Gebremariam A, **Davis MM.** Usual source of care and unmet need among vulnerable children: 1998-2006. *Pediatrics.* 2009;123:e214-e219.
85) Yoon EY, **Davis MM**, Rocchini A, Kershaw D, Freed GL. Medical management of children with primary hypertension by pediatric subspecialists. *Pediatr Nephrol.* 2009;24:147-153.
86) Macy ML, Stanley RM, Lozon MM, Sasson C, Gebremariam A, **Davis MM.** Trends in high-turnover stays among children hospitalized in the United States – 1993-2003. *Pediatrics.* 2009;123:996-1002.
87) Woolford SJ, Gebremariam A, Clark SJ, **Davis MM.** Persistent gap of incremental charges for obesity as a secondary diagnosis in common pediatric hospitalizations. *J Hosp Med.* 2009;4:149-156.
88) Odetola F, **Davis MM,** Cohn L, Clark SJ. Interhospital transfer of critically ill and injured children: an evaluation of transfer patterns, resource utilization, and clinical outcomes. *J Hosp Med.* 2009;4:164-170.
89) Hassan F, Lewis TC, **Davis MM,** Gebremariam A, Dombkowski KJ. Hospital utilization and charges among children with influenza, 2003. *Amer J Prev Med.* 2009;36:292-296.
90) Dempsey AF, Espinosa C, **Davis MM.** Unintended vaccination of pregnant adolescents: Estimating the scope of the problem and the impact of different pregnancy testing strategies. *Vaccine.* 2009;27:3536-3543.
91) Yoon EY, **Davis MM,** Freed GL, Clark SJ. Formulary coverage for lipid-lowering drugs recommended for children. *Clinical Pediatrics.* 2009;48:609-613.
92) Lee JM, Gebremariam A, Card-Higginson P, Shaw JL, Thompson JW, **Davis MM.** Poor performance of body mass index as a marker for hypercholesterolemia in children and adolescents. *Arch Pediatr Adolesc Med.* 2009;163:716-723.
93) Tarini BA, Singer DC, Butchart AT, Clark SJ, **Davis MM.** Parents' interest in predictive genetic testing for their children when a disease has no effective treatment. *Pediatrics.* 2009;124:e432-e438.
94) Patel MS, Lypson ML, **Davis MM.** Medical student perceptions of education in health care systems. *Acad Med.* 2009;84:1301-1306.
95) Dempsey AF, Singer DC, Clark SJ, **Davis MM.** Parents' views on three shot-related visits: Implications for use of adolescent vaccines like human papillomavirus vaccine. *Acad Pediatrics.* 2009;9:348-352.
96) Yoon EY, **Davis MM,** Kershaw, D, Clark SJ. Formulary coverage for antihypertensive drugs used in children. *Am J Pharm Benefits.* 2009;1:145-149.
97) Dempsey AF, Singer DC, Clark SJ, **Davis MM.** Adolescent preventive healthcare: what do parents want? *J Pediatr.* 2009;155:689-694.
98) Laroche HH, **Davis MM,** Forman J, Palmisano G, Reisinger HS, Tannas C, Spencer M, Heisler M. Children's roles in parents' diabetes self-management. *Amer Jour Prev Med.* 2009;37(6S1):S251-S261.
99) Davis RN, Caldwell C, Clark SJ, **Davis MM.** Depressive symptoms in non-resident African American fathers and involvement with their sons. *Pediatrics.* 2009;124:1611-1618.
100) Lee JM, Pilli S, Gebremariam A, Keirns CC, **Davis MM**, Vijan S, Freed GL, Herman WH, Gurney JG. Getting heavier, younger: trajectories of obesity over the life course. *Int J Obes (Lond).* 2009

Dec 1. [Epub ahead of print]

101) Woolford SJ, Clark SJ, Ahmed AR, **Davis MM.** Feasibility and acceptability of a one-page tool to help physicians assess and discuss obesity with parents of preschoolers. *Clin Pediatr.* 2009;48:954-959.

102) Lee JM, **Davis MM,** Woolford SJ, Gurney JG. Waist circumference percentile thresholds for identifying adolescents with insulin resistance in clinical practice. *Pediatric Diabetes.* 2009;10:336-342.

103) Hollingsworth JM, **Davis MM,** West BT, Wolf JS Jr, Hollenbeck BK. Trends in medical expulsive therapy use for urinary stone disease in U.S. emergency departments. *Urology.* 2009;74:1206-1210.

104) **Davis MM,** Butchart AT, Coleman MS, Singer DC, Wheeler JRC, Pok A, Freed GL. The expanding vaccine development pipeline, 1995-2008. *Vaccine.* 2010;28:1353-1356.

105) Lancaster CA, Gold KJ, Flynn HA, Yoo H, Marcus SM, **Davis MM.** Risk factors for depressive symptoms during pregnancy: a systematic review. *Amer Jour Obstet Gyn.* 2010;5-14.

106) Schilling P, Campbell D, Englesbe M, **Davis MM.** A comparison of in-hospital mortality risk conferred by high hospital occupancy, differences in nurse staffing levels, weekend admission, and seasonal influenza. *Medical Care.* 2010;48:224-232.

107) Freed GL, Clark SJ, Butchart AT, Singer DC, **Davis MM.** Parental vaccine safety concerns in 2009. *Pediatrics.* 2010;125:654-659.

108) Macy ML, Kim CS, Sasson C, Lozon MM, **Davis MM.** Pediatric observation units in the United States: a systematic review. *Jour Hosp Med.* 2010;5:172-182.

109) Okumura MJ, Kerr EA, Cabana MD, **Davis MM,** Demonner S, Heisler M. Physician views on barriers to primary care for young adults with childhood-onset chronic disease. *Pediatrics.* 2010;125:e748-e754.

110) Freed GL, Dunham KM, Clark SJ, **Davis MM**, on behalf of the Research Advisory Committee of the American Board of Pediatrics. Perspectives and preferences regarding physician selection and board certification among the general public. *J Pediatr.* 2010;156;841-845.

111) Tarini BA, Goldenberg A, Singer D, Clark SJ, Butchart A, **Davis MM.** Not without my permission: parents' willingness to permit use of newborn screening samples for research. *Public Health Genomics.* 2010;13:125-130.

112) Lancaster CA, Flynn HA, Johnson TRB, Marcus SM, **Davis MM.** Peripartum length of stay for women with depressive symptoms during pregnancy. *Jour Women's Health.* 2010;19:31-37.

113) Woolford SJ, Clark SJ, Gebremariam A, **Davis MM,** Freed GL. To cut or not to cut: physicians' perspectives on referring adolescents for bariatric surgery. *Obes Surg.* 2010;20:937-942.

114) Sussman J, Halasyamani LK, **Davis MM.** Hospitals during recession and recovery: vulnerable institutions and quality at risk. *Jour Hosp Med.* 2010;5:302-305.

115) Odetola FO, Gebremariam A, **Davis MM.** Comorbid illnesses among critically ill hospitalized children: impact on hospital resource use and mortality, 1997-2006. *Pediatr Crit Care Med.* 2010; 11:457-463.

116) Woolford SJ, Clark SJ, Gebremariam A, **Davis MM,** Freed GL. Physicians' perspectives on referring obese adolescents to pediatric multidisciplinary weight management programs. *Clin Pediatr.* 2010;49:871-875.

117) Macy ML, Stanley RM, Sasson C, Gebremariam A, **Davis MM.** High turnover stays for pediatric asthma in the United States: analysis of the 2006 Kids' Inpatient Database. *Med Care.* 2010;48:827-833.

118) Lee JM, Gebremariam A, **Davis MM,** Kim C. Trends in hospitalizations for diabetes over the life course. *Jour Women's Health.* 2010;19:2033-2042.

119) Patel MS, **Davis MM,** Lypson ML. Advancing medical education by teaching health policy. *N Engl Jour Med.* 2011;364:695-697.

120) Eisenberg D, Freed GL, **Davis MM,** Singer D, Prosser LA. Valuing health at different ages: evidence from a nationally representative survey in the US. *Applied Health Economics & Health Policy.* 2011;9:149-156.
121) Yoon EY, Clark SJ, Singer DC, Butchart AT, **Davis MM**. Parental preferences for FDA-approved medications prescribed for their children. *Clin Pediatr.* 2011;50:208-214.
122) Davis N, **Davis MM,** Freed GL, Clark SJ. Fathers' depression related to positive and negative parenting behaviors with one-year-old children. *Pediatrics.* 2011;127:612-618.
123) Freed GL, Clark SJ, Butchart AT, Singer DC, **Davis MM.** Sources and perceived credibility of vaccine safety information for parents. *Pediatrics.* 2011;127(suppl):S107-S112.
124) Palladino CL, Flynn HA, Richardson C, Marcus SM, Johnson TRB, **Davis MM**. Lengthened pre-delivery stay and antepartum complications in women with depressive symptoms during pregnancy. *Jour Women's Health.* 2011;20:953-962.
125) Benneyworth BD, Shanley TS, Odetola F, **Davis MM.** Inpatient health care utilization for children dependent on long-term mechanical ventilation – United States, 2000-2006. *Pediatrics.* 2011;127:e1533 -e1541.
126) Macy ML, **Davis MM,** Clark SJ, Stanley R. Parental health literacy and asthma education delivery during a visit to a community-based pediatric emergency department: a pilot study. *Pediatr Emerg Care.* 2011;27:469-474.
127) Palladino CL, Fedock GL, Forman JH, **Davis MM,** Henshaw E, Flynn HA. OB CARES – The obstetric clinic and resources study: providers' perceptions of addressing perinatal depression—a qualitative study. *Gen Hosp Psych.* 2011;33:267-278.
128) Zickafoose JS, Gebremariam A, Clark SJ, **Davis MM.** Medical home disparities between children with public and private insurance. *Academic Peds.* 2011;11:305-310.
129) **Davis MM,** Walter JK. Equality in quality in the era of the Affordable Care Act. *JAMA.* 2011:306:872-873.
130) Hassan F, **Davis MM,** Chervin RD. No independent association between insufficient sleep and childhood obesity in the National Survey of Children's Health. *J Clin Sleep Med.* 2011;7:153-157.
131) Dempsey AF, Schaffer S, Singer D, Butchart A, **Davis MM,** Freed GL. Alternative vaccination schedule preferences among parents of young children. *Pediatrics.* 2011;128:848-856.
132) **Davis MM,** Butchart AT, Wheeler JRC, Coleman MS, Singer DC, Freed GL. Failure-to-success ratios, transition probabilities and phase lengths for prophylactic vaccines versus other pharmaceuticals in the development pipeline. *Vaccine.* 2011;29:9414-9416.
133) Dayoub EJ, **Davis MM.** Relationship of therapeutic cancer vaccine development to population disease burden and five-year survival. *Human Vaccines.* 2011;7:1124-1129.
134) Odetola FO, Clark SJ, Lamarand KE, **Davis MM,** Garton HJ. Intracranial pressure monitoring in childhood meningitis with coma: a national survey of neurosurgeons in the United States. *Pediatr Crit Care Med.* 2011;12:e350-356.
135) Espinosa CM, **Davis MM,** Gilsdorf JR. Anaerobic osteomyelitis in children. *Pediatr Infect Dis J.* 2011;30:422-423.
136) Zickafoose JS, Benneyworth B, Riebschleger MP, Espinosa CE, **Davis MM.** Hospitalizations for intussusception before and after re-introduction of rotavirus vaccine in the United States. *Arch Pediatr Adolesc Med.* 2012;166:350-355.
137) Myrvik MP, Campbell AD, **Davis MM,** Butcher JL. Impact of psychiatric diagnoses on hospital length of stay in children with sickle cell anemia. *Pediatr Blood Cancer.* 2012;58:239-243.
138) Sun GH, **Davis MM**. The Patient Protection and Affordable Care Act of 2010: impact on otolaryngology practice and research. *Otolaryngol Head Neck Surg.* 2012 Jan 26. [Epub ahead of print]
139) Abir M, Choi H, Cooke CR, Wang SC, **Davis MM.** Effect of a mass casualty incident: clinical

outcomes and hospital charges for casualty patients versus concurrent inpatients. *Acad Emerg Med.* 2012;19:280-286.

140) Zickafoose JS, Gebremariam A, **Davis MM.** Medical home disparities for children by insurance type and state of residence. *Matern Child Health Jour.* 2012;16 Suppl 1:S178-S187.

141) Patrick SW, Schumacher RE, Benneyworth BD, Krans EE, McAllister JM, **Davis MM.** Neonatal abstinence syndrome and associated health care expenditures. *JAMA.* 2012;307:1934-1940.

142) Danziger P, **Davis MM.** Mandatory influenza vaccination programs for health care personnel in NACHRI-associated children's hospitals vs. non-children's hospitals. *Human Vaccines Immunotherapeutics.* 2012;8:731-735.

143) Singer DC, **Davis MM,** Gebremariam A, Clark SJ. Underinsurance for recently recommended vaccines in private health plans. *Jour Community Health.* 2012;37:1164-1167.

144) Macy ML, Clark SJ, Freed GL, Butchart AT, Singer DC, Sasson C, Meurer WJ, **Davis MM.** Carpooling and booster seats: a national survey of parents. *Pediatrics.* 2012;129:290-298.

145) Weinberg SH, Butchart AT, **Davis MM.** Size of clinical trials and introductory prices of prophylactic vaccine series. *Human Vaccines Immunotherapeutics.* 2012;8:1066-1070.

146) Patrick SW, Choi H, **Davis MM.** Increase in federal match associated with significant gains in coverage for children through Medicaid and SCHIP. *Health Affairs.* 2012;31:1796-1802.

147) Gowda C, Carlos RC, Butchart AT, Singer DC, **Davis MM,** Clark SJ, Dempsey AF. CHIAS: a standardized measure of parental HPV immunization attitudes and beliefs and its associations with vaccine uptake. *Sexual Transmit Dis.* 2012:39:475-481.

148) Sears ED, **Davis MM,** Chung KC. Relationship between timing of emergency procedures and limb amputation in patients with open tibia fracture in the United States, 2003 to 2009. *Plast Reconst Surg.* 2012;130:369-378.

149) Patrick SW, Schumacher RE, **Davis MM.** Variation in lumbar punctures for early onset neonatal sepsis: a nationally representative serial cross-sectional analysis, 2003-2009. *BMC Pediatrics.* 2012:12:134. DOI: 10.1186/1471-2431-12-134.

150) Patel MS, **Davis MM,** Lypson ML. The VALUE framework: training residents to provide value-based care for their patients. *Jour Gen Intern Med.* 2012;27:1210-1214.

151) Sears ED, Burke JF, **Davis MM,** Chung K. The influence of procedure delay on resource utilization: a national study of patients with open tibial fracture. *Plast Reconst Surg.* 2013;131:553-563.

152) **Davis MM,** Clark SJ, Butchart AT, Singer DC, Shanley TP, Gipson DS. Public participation in, and awareness about, medical research opportunities in the era of clinical and translational research. *Clin Transl Sci.* 2013;6:88-93.

153) Jensen KM, **Davis MM.** Health care in adults with Down syndrome: a longitudinal cohort study. *Jour Intell Disability Res.* 2013;57:947-958.

154) Woolford SJ, Clark SJ, Butchart A, Geiger JD, **Davis MM,** Fagerlin A. To pay or not to pay: public perception regarding insurance coverage of obesity treatment. *Obesity.* 2013;21:E709-E714.

155) Jensen KM, **Davis MM,** Cooke CM. Fidelity of administrative data when researching Down syndrome. *Medical Care.* 2013 Jan 25. [epub ahead of print]

156) Auger K, Kahn R, **Davis MM,** Beck A, Simmons J. Medical home quality and readmission risk for children hospitalized with asthma exacerbations. *Pediatrics.* 2013;131:64-70.

157) Sun GH, Auger KA, Aliu O, Patrick SW, Demonner S, **Davis MM.** Posttonsillectomy hemorrhage in children with von Willebrand disease or hemophilia. *JAMA Otolaryngol Head Neck Surg.* 2013;139:245-249.

158) Abir M, **Davis MM,** Sankar P, Wong AC, Wang SC. Design of a model to predict surge capacity bottlenecks for burn mass casualties at a large academic medical center. *Prehosp Disaster Med.* 2013;28:23-32.

159) Jensen KM, Taylor LC, **Davis MM.** Primary care for adults with Down syndrome: adherence to

preventive healthcare recommendations. *Jour Intell Disability Res.* 2013;57:409-421.

160) Pynnonen M, **Davis MM.** Extent of sinus surgery, 2000 to 2009: a population-based study. *Laryngoscope.* 2013;[epub ahead of print].

161) Krans EE, **Davis MM,** Palladino CL. Disparate patterns of prenatal care utilization stratified by medical and psychosocial risk. *Matern Child Health J.* 2013;17:639-645.

162) Aliu O, **Davis MM,** Demonner S, Chung KC. The influence of evidence in the surgical treatment of thumb basilar joint arthritis. *Plast Reconstr Surg.* 2013;131:816-828.

163) Goldenberg AJ, Dodson DS, **Davis MM,** Tarini BA. Parents' interest in whole-genome sequencing of newborns. *Genet Med.* 2013;[epub ahead of print].

164) Patrick SW, Schumacher RE, **Davis MM.** Methods of mortality risk adjustment in the NICU: a 20-year review. *Pediatrics.* 2013;131:S68-S74.

165) DeCamp LR, Kieffer E, Zickafoose JS, DeMonner S, Valbuena F, **Davis MM,** Heisler M. The voices of limited English proficiency mothers on pediatric primary care: lessons for the medical home. *Matern Child Health Jour.* 2013;17:95-109.

166) Patrick SW, **Davis MM,** Sedman AB, Meddings JA, Hieber S, Lee GM, Stillwell TL, Chenoweth CE, Espinosa CM, Schumacher RE. Accuracy of hospital administrative data in reporting central line-associated bloodstream infections in newborns. *Pediatrics.* 2013;131:S75-S80.

167) Sun GH, Auger KA, Aliu O, Patrick SW, Demonner S, **Davis MM.** Variation in inpatient tonsillectomy costs within and between US hospitals attributable to postoperative complications. *Med Care.* 2013;51:1048-1054.

168) Zickafoose JS, **Davis MM.** Medical home disparities are not created equal: differences in the medical home for children from different vulnerable groups. *J Health Care Poor Underserved.* 2013;24:1331-1343.

169) Walter JK, Benneyworth BD, Housey M, **Davis MM.** The factors associated with high-quality communication for critically ill children. *Pediatrics.* 2013;131:S90-S95.

170) Krans EE, **Davis MM,** Schwarz EB. Psychosocial risk, prenatal counseling and maternal behavior: findings from PRAMS, 2004-2008. *Am J Obstet Gynecol.* 2013;208:141.e1-e7.

171) Gaies MG, Jacobs JP, Cotts TB, **Davis MM.** The Patient Protection and Affordable Care Act: impact on care to patients with paediatric and congenital cardiac disease. *Cardiol Young.* 2013;10:1-4.

172) Walter JK, Burke JF, **Davis MM.** Research participation by low-income and race/ethnic minority groups: how payment may change the balance. *Clin Trans Sci.* 2013;6:363-371.

173) Sun GH, Demonner S, **Davis MM.** Epidemiological and economic trends in inpatient and outpatient thyroidectomy in the United States, 1996-2006. *Thyroid.* 2013;23:727-733.

174) Chang T, Choi H, Richardson CR, **Davis MM.** Implications of teen birth for overweight and obesity in adulthood. *Am J Obstet Gynecol.* 2013;110:e1-e7.

175) Heisler M, Halasyamani L, Cowen ME, **Davis MM,** Resnicow K, Strawderman RL, Choi H, Mase R, Piette JD. Randomized controlled effectiveness trial of reciprocal peer support in heart failure. *Circ: Heart Failure.* 2013:6:246-253.

176) Chang T, **Davis MM.** Potential adult Medicaid beneficiaries under the Patient Protection and Affordable Care Act compared with current adult Medicaid beneficiaries. *Ann Fam Med.* 2013;11:406-411.

177) Haggins A, Patrick S, Demonner S, **Davis MM.** When coverage expands: children's health insurance program as a natural experiment in use of health care services. *Acad Emerg Med.* 2013;20:1026-1032.

178) Auger KA, Patrick SW, **Davis MM.** Infant hospitalizations for pertussis before and after Tdap recommendations for adolescents. *Pediatrics.* 2013;132:5:e1149-e1155.

179) Cobb EM, Singer DC, **Davis MM.** Public interest in medical research participation: differences by volunteer status and study type. *Clin Trans Sci.* 2014;7:145-149.

180) Goldenberg AJ, Dodson DS, **Davis MM,** Tarini BA. Parents' interest in whole-genome sequencing of newborns. *Genet Medicine.* 2014:16:78-84.
181) Hanauer DA, Zheng K, Singer DC, Gebremariam A, **Davis MM.** Public awareness, perception, and use of online physician rating sites. *JAMA.* 2014;311:734-735.
182) Mueller EL, Park ER, **Davis MM.** What the Affordable Care Act means for survivors of pediatric cancer. *Jour Clin Oncol.* 2014;32:615-617.
183) Moniz MH, Chang T, **Davis MM.** Attitudes about mandated coverage of birth control medication and other health benefits in a US national sample. *JAMA.* 2014;311:2539-2541.
184) Hashikawa AN, Brousseau DC, Singer DC, Gebremariam A, **Davis MM.** Emergency department and urgent care for children excluded from child care. Pediatrics. 2014; 134(1):e120-7.
185) Auger KA, Kenyon CC, Feudtner C, **Davis MM.** Pediatric hospital discharge interventions to reduce subsequent utilization: a systematic review. *J Hosp Med.* 2014;9:251-260.
186) Sekhar DL, Clark SJ, **Davis MM,** Singer DC, Paul IM. Parental perspectives on adolescent hearing loss risk and prevention. *JAMA Otolaryngol Head Neck Surg.* 2014;140:22-28.
187) Krans EE, **Davis MM.** Strong Start for mothers and newborns: implications for prenatal care delivery. *Curr Opin Obstet Gynecol.* 2014; 511-515.
188) Kircher SM, Johansen ME, Nimeiri HS, Richardson CR, **Davis MM.** Impact of Medicare Part D on out-of-pocket drug costs and medical use for patients with cancer. *Cancer.* 2014;120:3378-3384.
189) Auger KA, Kahn RS, **Davis MM,** Simmons JM. Pediatric asthma readmission: asthma knowledge is not enough? *J Pediatr.* 2014;166:101-108.
190) Clark SA, Shoulders EN, **Davis MM.** Infant pertussis prevention information on Web sites of Michigan birthing hospitals. *Am Jour Inf Cntrl.* 2014;42:1241-1243.
191) Sandberg KC, **Davis MM,** Gebremariam A, Adler J. Increasing hospitalizations in inflammatory bowel disease among children in the United States, 1988-2011. *Inflamm Bowel Dis.* 2014;20:1754-1760.
192) Hanauer DA, Zheng K, Singer DC, Gebremariam A, **Davis MM.** Parental awareness and use of online physician rating sites. *Pediatrics.* 2014;134:e966-975.
193) Patrick SW, Kaplan HC, Passarella M, **Davis MM,** Lorch SA. Variation in treatment of neonatal abstinence syndrome in US children's hospitals. *J Perinatol.* 2014;34:867-872.
194) Sun GH, MacEachern MP, Perla RJ, Gaines JM, **Davis MM,** et al. Health care quality improvement publication trends. *Am Jour Med Qual.* 2014;29:403-407.
195) Barbaro RP, Odetola FO, Kidwell KM, Paden ML, Bartlett RH, **Davis MM*,** Annich GM* (*=joint senior authorship). Association of hospital-level volume of extracorporeal membrane oxygenation cases and mortality: analysis of the extracorporeal life support organization registry. *Am J Respir Crit Care Med.* 2015;191:894-901.
196) Jensen KM, Sevick CJ, Seewald LAS, Halbower AC, **Davis MM,** McCabe ERB, et al. Greater risk of hospitalization in children with Down syndrome and OSA at higher elevation. *Chest.* 2015;147:1344-1351.
197) Patrick SW, **Davis MM,** Lehman CU, Cooper WO. Increasing incidence and geographic distribution of neonatal abstinence syndrome: United States 2009 to 2012. *J Perinatol.* Published online first 30 Apr 2015; doi:10.1038/jp.2015.36.
198) Krans EE, Moloci NM, Housey MT, **Davis MM.** Impact of psychosocial risk factors on prenatal care delivery: a national provider survey. *Matern Child Health J.* 2014;18:2362-2370
199) Pynonnen MA, Lynn S, Kern HE, Novis SJ, Akkina SR, Keshavarzi NR, **Davis MM.** Diagnosis and treatment of acute sinusitis in the primary care setting: a retrospective cohort. *Laryngoscope.* 2015; published online first 22 May 2015;doi:10.1002/lary.25363.
200) Auger KA, Jerardi KE, Simmons JE, **Davis MM,** O'Toole JK, Sucharew HJ. It's complicated: overcoming statistical challenges of group learning in medical education research. *J Grad Med Ed.*

2015;7:326-330.

201) Auger KA, **Davis MM.** Pediatric weekend admission and increased unplanned readmission rates. *J Hosp Med.* Published online first 18 Sep 2015, DOI: 10.1002/jhm.2426.

Editorials and Commentaries (non-peer-reviewed)

1) **Davis MM,** Lantos JD. Ethical considerations in the public policy laboratory. *JAMA.* 2000;284:85-87.
2) **Davis MM,** Kemper AR. Valuing childhood vaccines. *J Pediatr.* 2003;143:283-284.
3) **Davis MM.** Race-based immunization recommendations and the potential to reduce racial disparities. *JAMA.* 2004;291:2253-2255.
4) **Davis MM,** Szilagyi PG. Can quality improvement reach into pockets of need for childhood immunizations? *Ambul Pediatr* 2004;4:224-225.
5) **Davis MM.** Planning the next wave of SCHIP research. *Pediatrics.* 2005;115:492-494.
6) **Davis MM.** Varicella vaccine, cost-effectiveness analyses, and vaccination policy. *JAMA.* 2005;294:845-846.
7) Van Cleave J, Kemper AR, **Davis MM.** Interpreting negative results from an underpowered clinical trial: warts and all. *Arch Pediatr Adolesc Med.* 2006;160:1126-1129.
8) Garfield CF, Clark-Kauffman E, **Davis MM.** Fatherhood as a component of men's health. *JAMA.* 2006;296:2365-2368.
9) **Davis MM.** Cardiac rehabilitation as a site for influenza vaccination? *J Cardiopulm Rehabil Prev.* 2007;27:210-211.
10) **Davis MM.** Reasons and remedies for underinsurance for childhood and adolescent vaccines. *JAMA.* 2007;298:680-682.
11) **Davis MM,** Brosco JP. Being specific about being special: definitions of childhood chronic conditions and children with special health care needs. *Arch Pediatr Adolesc Med.* 2007;161:1003-1005.
12) **Davis MM.** Challenges in cost-effectiveness analyses of hospital interventions to improve quality. *Infect Control Hosp Epidemiol.* 2008;29:395-397.
13) **Davis MM,** Shah S. Necessary innovations in immunization delivery. *Arch Pediatr Adolesc Med.* 2009;163:483-485.
14) Shah S, **Davis MM.** Old disease, innovative response: accelerating infant vaccination during a community pertussis outbreak. *JAMA.* 2009;301:2260-2261.
15) Rivara FP, **Davis MM.** Archives journal club just a click away. *Arch Pediatr Adolesc Med.* 2009;163:957.
16) **Davis MM.** Medicaid, underinsurance, and the dawn of an era for children's coverage. *Pediatrics.* 2010;125:817-819.
17) **Davis MM.** Price as a double-edged sword in the golden era of vaccines. *Human Vaccines.* 2010;6:689-693.
18) **Davis MM.** The conundrum of combination vaccines. *Arch Pediatr Adolesc Med.* 2010;164:1171-1172.
19) Chopra V, **Davis MM.** In search of equipoise. *JAMA.* 2011;305:1234-1235.
20) **Davis MM,** Dayoub E. A strategic approach to therapeutic cancer vaccines in the 21st century. *JAMA.* 2011;305:2343-2344.
21) **Davis MM,** CP Gross, CM Clancy. Building a bridge to somewhere better: linking health care research and health policy. *Health Services Res.* 2012:47:329-336.
22) Krans EE, **Davis MM.** *Preventing Low Birthweight:* 25 years, prenatal risk, and the failure to reinvent prenatal care. *Amer Jour Obstet Gynecol.* 2012;206:398-403.

23) Christakis DA, Joffe A, Keren R, **Davis MM,** Shah SS, Rivara FP. Introducing *JAMA Pediatrics. Arch Pediatr Adolesc Med.* 2012;166:663.
24) **Davis MM,** Riebschleger MP. The next century of children's health care: addressing disparities, workforce deficiencies, and undercoordinated services. *Arch Pediatr Adolesc Med.* 2011;165:1067-1068.
25) Vickery KD, Sauser K, **Davis MM.** Policy responses to demand for health care access: from the individual to the population. *JAMA.* 2013;309:665-666.
26) Patrick SW, **Davis MM.** Reformulating the federal match as a key to the sustainability of Medicaid. *JAMA Pediatr.* 2013;167:218-220.
27) **Davis MM.** Stunting the growth of child health research: a need to reframe "children are not small adults." *JAMA Pediatr.* 2013;167:598-599.

Non-Peer-Reviewed Publications and Published Letters

1) **Davis MM**. Music as a means of public health education among Guatemalan schoolchildren. Honors thesis, Harvard Medical School, Boston, 1994.
2) **Davis, MM.** Health through song: Outreach workers in Benin and Guatemala use lyrics to promote health. *Harv Med Alumni Bull.* 1999;73:36-41.
3) **Davis MM.** Health behaviors (helping patients change). In: *Pocket Primary Care.* LK Halasyamani, BP Lucas, eds. Philadelphia: Lippincott Williams & Wilkins, 2001. pp. 4-5.
4) **Davis MM.** Effects and ethics of sanctions on childhood immunization rates. *JAMA.* 2000;284:2057. [letter]
5) **Davis MM,** Bruckman D, Cabana MD, Clark SJ, Dombkowski KJ, Kemper AR, Rushton JL, Freed GL. Constructive use of race and ethnicity variables. *Arch Pediatr Adol Med.* 2001;155:973. [letter]
6) **Davis MM,** Kemper AR. Valuing vaccines. *J Pediatr.* 2004;145:568. [letter]
7) **Davis MM.** Effect of pneumococcal vaccination on quality of life in children with recurrent acute otitis media: a randomized, controlled trial. *J Pediatr.* 2005;147:124-125. [comment]
8) **Davis MM.** Cost-effectiveness of conjugate meningococcal vaccination strategies in the United States. *J Pediatr.* 2005;147:407-408. [comment]
9) **Davis MM.** Acellular pertussis vaccine is protective for adolescents and adults. *J Pediatr.* 2006;148:417. [comment]
10) **Davis MM,** Patel MS, Halasyamani LK. Medicare prescription drug plan costs and affordability. *J Gen Intern Med.* 2007;available at: http://www.springerlink.com/content/a8v3r3712v7732v1/fulltext.pdf.
11) Patrick SW, Schumacher RE, **Davis MM.** Neonatal abstinence syndrome—reply. *JAMA.* 2012;308:762-764. [letter]

Research and Policy Briefs (non-peer reviewed)

1) **Davis MM,** Hibbard JH, Milstein A. Consumer tolerance for inaccuracy in physician performance ratings: one size fits none. Center for Studying Health System Change, Washington, DC: Issue Brief No. 110, March 2007. Available at: http://www.hschange.org/CONTENT/921/.
2) **Davis MM,** Singer DC, Clark SJ. More children expected to seek care at retail clinics. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 1, Issue 1, April 2007. Available at: http://www.med.umich.edu/mott/research/chearretailpoll.html
3) **Davis MM,** Singer DC, Clark SJ. Smoking, drugs, and obesity top public's list of health problems for children. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 1, Issue 2, May 2007. Available at:

http://www.med.umich.edu/mott/research/chearhealthconcernpoll.html

4) **Davis MM,** Singer DC, Clark SJ. Majority of parents not in favor of state HPV vaccine mandates. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 1, Issue 3, May 2007. Available at: http://www.med.umich.edu/mott/research/chearhpvvaccine.html
5) **Davis MM,** Tarini B, Singer DC, Clark SJ. DNA biobanks and genetic testing – for whom, and when? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 1, Issue 4, June 2007. Available at: http://www.med.umich.edu/mott/research/cheargenetictesting.html
6) **Davis MM,** Singer DC, Clark SJ. Covering families: how generous should SCHIP be? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 1, Issue 5, August 2007. Available at: http://www.med.umich.edu/mott/research/chearschip.html
7) **Davis MM,** Singer DC, Clark SJ. Flu vaccination among children may reach all-time high this year. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 2, Issue 1, October 2007. Available at: http://www.med.umich.edu/mott/research/chearflupoll.html
8) **Davis MM,** Singer DC, Clark SJ. Do high gas prices lead to less health care for kids? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 2, Issue 2, November 2007. Available at: http://www.med.umich.edu/mott/research/cheargascard.html
9) **Davis MM,** Singer DC, Clark SJ. Parental concerns about childhood obesity: time for a reality check? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 2, Issue 3, December 2007. Available at: http://www.med.umich.edu/mott/research/chearbmi.html.
10) **Davis MM,** Dempsey A, Singer DC, Clark SJ. Adolescent check-ups: parents want diet, drugs, and sex discussed. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 2, Issue 4, January 2008. Available at: http://www.med.umich.edu/mott/research/chearcheckup.html.
11) **Davis MM,** Singer DC, Clark SJ. Adults and kids less protected than anticipated against the flu. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 3, Issue 1, January 2008. Available at: http://www.med.umich.edu/mott/research/chearfluupdate.html.
12) **Davis MM,** Singer DC, Butchart A, Clark SJ. Nearly 70 million Americans using discount generic prescription drug programs. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 3, Issue 2, February 2008. Available at: http://www.med.umich.edu/mott/research/cheardgrxprogram.html.
13) **Davis MM,** Singer DC, Butchart A, Clark SJ. Child health threats: are consumer alerts enough? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 3, Issue 3, March 2008. Available at: http://www.med.umich.edu/mott/research/chearconsumeralerts.html.
14) **Davis MM,** Yoon EY, Singer DC, Butchart A, Clark SJ. Ask the doctor: Is my child's medicine FDA-approved? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 3, Issue 4, April 2008. Available at: http://www.med.umich.edu/mott/research/chearFDAapprovedmedicines.html.
15) **Davis MM,** Singer DC, Butchart A, Clark SJ. Children in research: many parents willing if risk of harm is small. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 3, Issue 5, May 2008. Available at: http://www.med.umich.edu/mott/research/chearChildrenInResearch.html.
16) **Davis MM,** Singer DC, Butchart A, Clark SJ. Summer safety for 'tweens' home alone. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 4, Issue 1, June 2008. Available at: http://www.med.umich.edu/mott/research/chearSummerSafety.html.
17) **Davis MM,** Singer DC, Butchart A, Clark SJ. Obesity tops list of biggest health problems for kids in 2008. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan.

Vol 4, Issue 2, July 2008. Available at: http://health.med.umich.edu/body.cfm?id=415.

18) **Davis MM,** Singer DC, Butchart A, Clark SJ. Retail clinics: an emerging source of health care for children. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 4, Issue 3, August 2008. Available at: http://health.med.umich.edu/body.cfm?id=480.
19) **Davis MM,** Singer DC, Butchart A, Clark SJ. Bullying worries parents of overweight and obese children. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 4, Issue 4, September 2008. Available at: http://health.med.umich.edu/home_npch.cfm?id=325.
20) **Davis MM,** Singer DC, Butchart A, Clark SJ. Who do voters prefer for children's health issues? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 5, Issue 1, October 2008. Available at: http://health.med.umich.edu/body.cfm?id=507.
21) **Davis MM,** Singer DC, Butchart A, Clark SJ. Knowledge key to support for embryonic stem cell research. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 5, Issue 2, October 2008. Available at: http://health.med.umich.edu/body.cfm?id=514.
22) **Davis MM,** Singer DC, Butchart A, Clark SJ. Parents of high school athletes speak out on performance-enhancing drugs. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 5, Issue 3, November 2008. Available at: http://health.med.umich.edu/body.cfm?id=521.
23) **Davis MM,** Singer DC, Butchart A, Clark SJ. Mental health services for children and adolescents: missed opportunities in primary care & barriers to specialty care. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 5, Issue 4, December 2008. Available at: http://health.med.umich.edu/body.cfm?id=529.
24) **Davis MM,** Singer DC, Butchart A, Clark SJ. For 12 million uninsured children, high barriers to dental care. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 5, Issue 5, February 2009. Available at: http://health.med.umich.edu/body.cfm?id=538.
25) **Davis MM,** Singer DC, Butchart A, Clark SJ. Private insurance in peril: millions of parents worried about costs, coverage. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 6, Issue 1, March 2009. Available at: http://health.med.umich.edu/body.cfm?id=547.
26) **Davis MM,** Singer DC, Butchart A, Clark SJ. Sweet danger – public links alcopops, underage drinking. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 6, Issue 2, April 2009. Available at: http://health.med.umich.edu/workfiles/npch/040609report.pdf.
27) O'Malley AS, Tynan A, Cohen G, Kemper NM, **Davis MM.** Coordination of care by primary care practices: strategies, lessons and implications. Center for Studying Health System Change, Research Brief No. 12. Available at: http://www.hschange.org/CONTENT/1058/1058.pdf.
28) **Davis MM,** Leo H, Singer DC, Butchart A, Clark SJ. Are schools doing enough for food-allergic kids? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 6, Issue 3, May 2009. Available at: http://health.med.umich.edu/home_npch.cfm?id=325.
29) **Davis MM,** Singer DC, Butchart A, Clark SJ. Bicycle helmet laws effective but not yet the norm. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 6, Issue 4, June 2009. Available at: http://health.med.umich.edu/home_npch.cfm?id=325.
30) **Davis MM,** Singer DC, Butchart A, Clark SJ. For kids, hard economic times mean more stress, fewer doctor visits. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 7, Issue 1, July 2009. Available at: http://health.med.umich.edu/body.cfm?id=586.
31) **Davis MM,** Singer DC, Butchart A, Clark SJ. Public concern rising about childhood obesity. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 7, Issue 2, August 2009. Available at: http://www.med.umich.edu/mott/npch/reports/publicconcern.htm.

32) **Davis MM,** Singer DC, Butchart A, Clark SJ. Healthy food choices: can schools improve their grades? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 7, Issue 3, August 2009. Available at: http://www.med.umich.edu/mott/npch/reports/foodchoice.htm.
33) **Davis MM,** Singer DC, Butchart A, Clark SJ. Parents pan school performance on bullying prevention. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 7, Issue 4, September 2009. Available at: http://www.med.umich.edu/mott/npch/reports/safeschool.htm.
34) **Davis MM,** Singer DC, Butchart A, Clark SJ. Parents may underestimate the risks of H1N1 flu for their children. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 8, Issue 1, September 2009. Available at: http://www.med.umich.edu/mott/npch/reports/h1n1.htm.
35) **Davis MM,** Singer DC, Butchart A, Clark SJ. Public to health care workers: get your H1N1 vaccine. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 8, Issue 2, October 2009. Available at: http://www.med.umich.edu/mott/npch/reports/flushot.htm.
36) **Davis MM,** Singer DC, Butchart A, Clark SJ. Internet predators, privacy and porn concern parents. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 8, Issue 3, November 2009. Available at: http://www.med.umich.edu/mott/npch/reports/internetsafety.htm.
37) **Davis MM,** Singer DC, Butchart A, Clark SJ. In age of 'sexting', parents weigh options to block inappropriate content. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 8, Issue 4, December 2009. Available at: http://www.med.umich.edu/mott/npch/reports/cellphone.htm.
38) **Davis MM,** Singer DC, Butchart A, Clark SJ. Health care provider recommendations key to H1N1 vaccination. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 9, Issue 1, January 2010. Available at: http://www.med.umich.edu/mott/npch/reports/h1h1vac.htm.
39) **Davis MM,** Singer DC, Butchart A, Clark SJ. Is the vaccine worse than the disease? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 9, Issue 2, February 2010. Available at: http://www.med.umich.edu/mott/npch/reports/h1n1immunization.htm.
40) **Davis MM,** Macy ML, Singer DC, Butchart A, Clark SJ. Many parents not using booster seats, unaware of state laws for kids 4-8 years old. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 9, Issue 3, March 2010. Available at: http://www.med.umich.edu/mott/npch/reports/boosterseat.htm.
41) **Davis MM,** Singer DC, Butchart A, Clark SJ. Speak or spank? More parents choose reasoning than physical discipline. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 9, Issue 4, April 2010. Available at: http://www.med.umich.edu/mott/npch/reports/spank.htm.
42) **Davis MM,** Singer DC, Butchart A, Clark SJ. "ePediatrics": Parents want more communication with their kids' doctors. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 9, Issue 5, May 2010. Available at: http://www.med.umich.edu/mott/npch/reports/communication.htm.
43) Clark SJ, Singer DC, Butchart A, **Davis MM**. Concussions in school sports: parents ill-prepared for role in reducing kids' risks. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 10, Issue 1, June 2010. Available at: http://www.med.umich.edu/mott/npch/reports/concussions.htm.
44) Tarini BA, **Davis MM,** Singer DC, Butchart A, Clark SJ. Most parents interested in at-home genetic testing for their kids. C.S. Mott Children's Hospital National Poll on Children's Health, University of

Michigan. Vol 10, Issue 2, July 2010. Available at: http://www.med.umich.edu/mott/npch/reports/genetic.htm.

45) **Davis MM,** Singer DC, Butchart A, Clark SJ. Obesity, stress, teen pregnancy top children's health problems and getting worse. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 10, Issue 3, August 2010. Available at: http://www.med.umich.edu/mott/npch/reports/topten.htm.
46) **Davis MM,** Singer DC, Butchart A, Clark SJ. For e-cigarettes, public supports health warnings and ban on sales to minors. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 10, Issue 4, September 2010. Available at: http://www.med.umich.edu/mott/npch/reports/ecigaretts.htm.
47) **Davis MM,** Singer DC, Butchart A, Clark SJ. Parent views on medical research—safety of vaccines and medicines top priorities. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 11, Issue 1, October 2010. Available at: http://www.med.umich.edu/mott/npch/reports/medicalresearch.htm.
48) **Davis MM,** Singer DC, Butchart A, Clark SJ. Gun shy? 14 million parents have never talked gun safety with their kids. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 11, Issue 2, November 2010. Available at: http://www.med.umich.edu/mott/npch/reports/gunshy.htm.
49) **Davis MM,** Singer DC, Butchart A, Clark SJ. Strong public support for innovative programs to prevent teen pregnancy. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 11, Issue 3, January 2011. Available at: http://www.med.umich.edu/mott/npch/reports/pregnancy.htm.
50) **Davis MM,** Lewis TC, Hershenson M, Singer DC, Butchart A, Clark SJ. Tobacco: a smoking gun for kids' asthma attacks. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 11, Issue 4, January 2011. Available at: http://www.med.umich.edu/mott/npch/reports/smoking.htm.
51) **Davis MM,** Singer DC, Butchart A, Clark SJ. Despite warnings, parents continue to use cough and cold medicines for young kids. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 12, Issue 1, February 2011. Available at: http://www.med.umich.edu/mott/npch/reports/coldmed.htm.
52) **Davis MM,** Singer DC, Butchart A, Clark SJ. Parents wants explanations, not scare tactics, from the media about children's health. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 12, Issue 2, March 2011. Available at: http://www.med.umich.edu/mott/npch/reports/explanation.htm.
53) **Davis MM,** Singer DC, Butchart A, Clark SJ. Gym gone but not forgotten? Parents want more physical activity at school for kids. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 12, Issue 3, April 2011. Available at: http://www.med.umich.edu/mott/npch/reports/gym.htm.
54) **Davis MM,** Woolford SJ, Singer DC, Butchart A, Clark SJ. Bariatric surgery for teens: how young is too young? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 12, Issue 4, May 2011. Available at: http://www.med.umich.edu/mott/npch/reports/bariatric.htm.
55) **Davis MM,** Singer DC, Butchart A, Clark SJ. Few parents enforce shower-before-pool rules that prevent illness from water parks. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 13, Issue 1, June 2011. Available at: http://www.med.umich.edu/mott/npch/reports/watersafety.htm.
56) **Davis MM,** Singer DC, Butchart A, Clark SJ. Most parents unaware of research opportunities for their children. C.S. Mott Children's Hospital National Poll on Children's Health, University of

Michigan. Vol 13, Issue 2, July 2011. Available at: http://www.med.umich.edu/mott/npch/reports/researchopp.htm.

57) **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. Drug abuse now equals childhood obesity as top health concern for kids. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 13, Issue 3, August 2011. Available at: http://www.med.umich.edu/mott/npch/reports/topten2011.htm.
58) **Davis MM,** Biermann B, Marcus S, Hua L, Singer DC, Butchart A, Kauffman AD, Clark SJ. Parents say, "Other teens drink and use marijuana, but my kids don't." C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 13, Issue 4, September 2011. Available at: http://www.med.umich.edu/mott/npch/reports/substanceuse.htm .
59) Macy ML, **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. Parents turning car seats to face forward too early. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 13, Issue 5, September 2011. Available at: http://www.med.umich.edu/mott/npch/reports/carseats.htm.
60) **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. Many young children off to a poor start with dental health. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 13, Issue 6, October 2011. Available at: http://www.med.umich.edu/mott/npch/reports/dentalhealth.htm.
61) **Davis MM,** Mohr B, Markman L, Singer DC, Butchart A, Kauffman AD, Clark SJ. Many infants at risk in unsafe sleep settings. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 13, Issue 7, November 2011. Available at http://mottnpch.org/reports-surveys/many-infants-risk-unsafe-sleep-settings.
62) Clark SJ, Sekhar DL, Singer DC, Butchart A, Kauffman AD, **Davis MM**. Silent risk: most parents and teens not talking about noise-induced hearing loss. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 14, Issue 1, December 2011. Available at: http://mottnpch.org/reports-surveys/silent-risk-most-parents-and-teens-not-talking-about-noise-induced-hearing-loss.
63) **Davis MM,** Rosen DS, Christner J, Singer DC, Butchart A, Kauffman AD, Clark SJ. School obesity programs may promote worrisome eating behaviors and physical activity. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 14, Issue 2, January 2012. Available at: http://mottnpch.org/reports-surveys/school-obesity-programs-may-promote-worrisome-eating-behaviors-and-physical-activity.
64) Clark SJ, Singer DC, Butchart A, Kauffman AD, **Davis MM**. Too much of a good thing? Kids in low-income families drink more juice than recommended. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 14, Issue 3, February 2012. Available at: http://mottnpch.org/reports-surveys/too-much-good-thing-kids-low-income-families-drink-more-juice-recommended.
65) **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. For youth sexting: public supports education, not criminal charges. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 15, Issue 1, March 2012. Available at: http://www.mottnpch.org/reports-surveys/youth-sexting-public-supports-education-not-criminal-charges.
66) **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. Easy-access medicines a poisoning risk for kids at home. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 15, Issue 2, April 2012. Available at: http://www.mottnpch.org/reports-surveys/easy-access-medicines-poisoning-risk-kids-home.
67) Clark SJ, Singer DC, Butchart A, Kauffman AD, **Davis MM**. Pay-to-play sports keeping low-income kids out of the game. C.S. Mott Children's Hospital National Poll on Children's Health, University

of Michigan. Vol 15, Issue 3, May 2012. Available at: http://www.mottnpch.org/reports-surveys/pay-play-sports-keeping-lower-income-kids-out-game.

68) **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. Public wants Presidential candidates to address childhood obesity, bullying. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 16, Issue 1, June 2012. Available at: http://www.mottnpch.org/reports-surveys/public-wants-presidential-candidates-address-childhood-obesity-bullying.
69) Clark SJ, Singer DC, Butchart A, Kauffman AD, **Davis MM**. Public reluctant to support teen HPV vaccination without parental consent. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 16, Issue 2, July 2012. Available at: http://www.mottnpch.org/reports-surveys/public-reluctant-support-teen-hpv-vaccination-without-parental-consent.
70) **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. Top 10 child health concerns: exercixe, obesity, smoking lead list. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 16, Issue 3, August 2012. Available at: http://www.mottnpch.org/reports-surveys/top-10-child-health-concerns-exercise-obesity-smoking-lead-list.
71) **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. Bullying: when should schools take action? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 16, Issue 4, September 2012. Available at: http://www.mottnpch.org/reports-surveys/bullying-when-should-schools-take-action.
72) **Davis MM,** Hashikawa A, Singer DC, Butchart AT, Kauffman AD, Clark SJ. Sick kids, struggling parents. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 16, Issue 5, October 2012. Available at: http://www.mottnpch.org/reports-surveys/sick-kids-struggling-parents.
73) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Public supports expanded Internet safety requirements to protect kids. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 17, Issue 1, November 2012. Available at: http://www.mottnpch.org/reports-surveys/public-supports-expanded-internet-safety-requirements-protect-kids.
74) **Davis MM,** Lesperance M, Handelsman J, Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Parents loud and clear: test tweens and teens for hearing loss, too. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 17, Issue 2, December 2012. Available at: http://mottnpch.org/reports-surveys/parents-loud-and-clear-test-teens-and-tweens-hearing-loss-too.
75) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, **Davis MM.** Parents numb to misuse of narcotic pain medicines by youth? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 17, Issue 3, January 2013. Available at: http://mottnpch.org/reports-surveys/parents-numb-misuse-narcotic-pain-medicines-youth.
76) **Davis MM,** Udow-Phillips M, Riba M, Young D, Royan R. Primary care capacity and health reform: is Michigan ready? January 2013. Center for Healthcare Research and Transformation. Ann Arbor, MI. Available at: http://www.chrt.org/public-policy/policy-briefs/primary-care-capacity-and-health-reform-is-michigan-ready/.
77) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. How to select a child's doctor? Parents prefer grapevine to online. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 17, Issue 4, February 2013. Available at: http://mottnpch.org/reports-surveys/how-select-child%E2%80%99s-doctor-parents-prefer-grapevine-online.
78) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Just what the doctor ordered? Not

for many parents. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 18, Issue 1, March 2013. Available at: http://mottnpch.org/reports-surveys/just-what-doctor-ordered-not-many-parents.

79) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Parents ignore warning labels, give cough and cold meds to young kids. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 18, Issue 2, April 2013. Available at: http://mottnpch.org/reports-surveys/parents-ignore-warning-labels-give-cough-cold-meds-young-kids.

80) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. One in ten teens using "study drugs," but are parents paying attention? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 18, Issue 3, May 2013. Available at: http://mottnpch.org/reports-surveys/one-ten-teens-using-%E2%80%9Cstudy-drugs%E2%80%9D-are-parents-paying-attention.

81) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Protecting newborns from whooping cough. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 18, Issue 4, June 2013. Available at: http://mottnpch.org/reports-surveys/protecting-newborns-whooping-cough.

82) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Broad public support for banning smoking in vehicles with kids present. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 19, Issue 1, July 2013. Available at: http://mottnpch.org/reports-surveys/broad-public-support-banning-smoking-vehicles-kids-present.

83) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Top child health concerns: obesity, drug abuse, and smoking. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 19, Issue 2, August 2013. Available at: http://mottnpch.org/reports-surveys/top-child-health-concerns-obesity-drug-abuse-and-smoking.

84) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Top public priorities for children's health research: cancer, diabetes, birth defects. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 19, Issue 3, September 2013. Available at: http://mottnpch.org/reports-surveys/top-public-priorities-children%E2%80%99s-health-research-cancer-diabetes-birth-defects.

85) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, **Davis MM.** Email consultation: co-pay or no-pay? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 19, Issue 4, October 2013. Available at: http://mottnpch.org/reports-surveys/email-consultation-co-pay-or-no-pay.

86) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Medical research needs kids, but parents not aware of opportunities. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 19, Issue 5, November 2013. Available at: http://mottnpch.org.reports-surveys/medical-research-needs-kids-parents-not-aware-opportunities.

87) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Adults worry e-cigarettes will encourage kids to start smoking tobacco. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 20, Issue 1, December 2013. Available at: http://mottnpch.org/reports-surveys/adults-worry-e-cigarettes-will-encourage-kids-start-smoking-tobacco.

88) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, **Davis MM.** Seeing specialists: Roles of parents and providers unclear. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 20, Issue 2, January 2014. Available at: http://mottnpch.org/reports-surveys/seeing-specialists-roles-parents-providers-unclear.

89) **Davis MM,** Moniz MH, O'Connell LK, Kauffman AD, Singer DC, Gebremariam A, Clark SJ.

"Breast is best" but uninsured parents take breastfeeding classes less often. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 20, Issue 3, February 2014. Available at: http://mottnpch.org/reports-surveys/%E2%80%9Cbreast-best%E2%80%9D-uninsured-parents-take-breastfeeding-classes-less-often.

90) Clark SJ, Greenhawt M, Kauffman AD, Singer DC, Gebremariam A, **Davis MM.** Nut-free lunch? Parents speak out. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 20, Issue 4, March 2014. Available at: http://mottnpch.org/reports-surveys/nut-free-lunch-parents-speak-out.
91) **Davis MM,** Inniss AK, Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Screening out screen time: Parents limit media use for young children. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 21, Issue 1, April 2014. Available at: http://mottnpch.org/reports-surveys/screening-out-screen-time-parents-limit-media-use-young-children.
92) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Fighting childhood obesity: Are schools passing or failing? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 21, Issue 2, May 2014. Available at: http://mottnpch.org/reports-surveys/fighting-childhood-obesity-are-schools-passing-or-failing.
93) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, **Davis MM.** Sports physicals: convenient versus comprehensive? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 21, Issue 3, June 2014. Available at: http://mottnpch.org/reports-surveys/sports-physicals-convenient-versus-comprehensive.
94) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, **Davis MM.** The circumcision decision: Parents want info, not directives, from docs. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 21, Issue 4, July 2014. Available at: http://mottnpch.org/reports-surveys/circumcision-decision-parents-want-info-not-directives-docs.
95) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. School violence, gun-related injuries in top 10 child health concerns in U.S. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 22, Issue 1, August 2014. Available at: http://mottnpch.org/reports-surveys/school-violence-gun-related-injuries-top-10-child-health-concerns-us.
96) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, **Davis MM.** Head smart? Parents get confidence boost from concussion education. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 22, Issue 2, September 2014. Available at: http://mottnpch.org/reports-surveys/head-smart-parents-get-confidence-boost-concussion-education.
97) **Davis MM,** Woolford SJ, Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Nutrition facts: how moms and dads view labels differently. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 22, Issue 3, October 2014. Available at: http://mottnpch.org/reports-surveys/nutrition-facts-how-moms-and-dads-view-labels-differently.
98) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, Matos-Moreno A, **Davis MM.** Parents support daycare policies to get kids up-to-date on vaccines. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 22, Issue 4, November 2014. Available at: http://mottnpch.org/reports-surveys/parents-support-daycare-policies-get-kids-date-vaccines.
100) **Davis MM,** Fredericks E, Kauffman AD, Singer DC, Gebremariam A, Matos-Moreno A, Clark SJ. Can their 18-year-olds make a doctor's appointment? Half of parents say no. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 22, Issue 5, December 2014. Available at: http://mottnpch.org/reports-surveys/can-their-18-year-olds-make-doctor%E2%80%99s-appointment-half-parents-say-no.
101) **Davis MM,** for the Michigan Department of Community Health. Recommendations for addressing

the needs of high utilizer / super utilizer patients in Michigan. Submitted to the Michigan Legislature, December 2014.

102) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, Matos-Moreno A, **Davis MM.** Pay-to-play sports keeping some kids on the sidelines. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 22, Issue 6, January 2015. Available at: http://mottnpch.org/reports-surveys/pay-play-sports-keeping-some-kids-sidelines.

103) **Davis MM,** Kauffman AD, Singer DC, Matos-Moreno A, Clark SJ. Parents conflicted about later school start times for teens. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 23, Issue 1, February 2015. Available at: http://mottnpch.org/reports-surveys/parents-conflicted-about-later-school-start-times-teens.

104) Clark SJ, Kauffman AD, Singer DC, Matos-Moreno A, **Davis MM.** Parents on social media: likes and dislikes of sharenting. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 23, Issue 2, March 2015. Available at: http://mottnpch.org/reports-surveys/parents-social-media-likes-and-dislikes-sharenting.

105) **Davis MM,** Kauffman AD, Singer DC, Matos-Moreno A, Clark SJ. Support for medical marijuana use lower for kids than for adults. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 23, Issue 3, April 2015. Available at: http://mottnpch.org/reports-surveys/support-medical-marijuana-use-lower-kids-adults.

106) Clark SJ, Kauffman AD, Singer DC, Matos-Moreno A, **Davis MM.** Many parents missing the link between child behavior and health. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 23, Issue 4, May 2015. Available at: http://mottnpch.org/reports-surveys/many-parents-missing-link-between-child-behavior-and-health.

107) **Davis MM,** Kauffman AD, Singer DC, Matos-Moreno A, Clark SJ. Too convenient? Majority of adults support bans on powdered alcohol. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 24, Issue 1, June 2015. Available at: http://mottnpch.org/reports-surveys/too-convenient-majority-adults-support-bans-powdered-alcohol.

108) **Davis MM,** Kauffman AD, Singer DC, Matos-Moreno A, Clark SJ. Safer, with more benefits: parents' views on vaccines shifting. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 24, Issue 2, July 2015. Available at: http://mottnpch.org/reports-surveys/safer-more-benefits-parents%E2%80%99-vaccines-views-shifting.

109) **Davis MM,** Kauffman AD, Singer DC, Matos-Moreno A, Clark SJ. Top 10 child health problems: more concern for sexting, Internet safety. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 24, Issue 3, August 2015. Available at: http://mottnpch.org/reports-surveys/top-10-child-health-problems-more-concern-sexting-internet-safety.

110) Clark SJ, Kauffman AD, Singer DC, Matos-Moreno A, **Davis MM.** Parents conflicted about how to label, punish cyberbullying. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 24, Issue 4, September 2015. Available at: http://mottnpch.org/reports-surveys/parents-conflicted-about-how-label-punish-cyberbullying.

Opinion/Editorial Publications in Lay Press (non-peer-reviewed)

1) **Davis MM.** Expanding kids' care won't socialize medicine. *The Detroit News.* October 10, 2007.
2) Osta AD, **Davis MM.** 'Going green' means gasping for air. *The Detroit News.* January 9, 2008.
3) Tarini BA, **Davis MM.** Laws won't erase genetic dilemmas. *The Detroit News.* May 28, 2008.
4) **Davis MM.** Use Michigan's existing tobacco laws to cover e-cigarettes. *The Detroit Free Press.* May 6, 2014.

Eric P. Rothstein, CPA

Principal

Education

MA, Economics, University of California-Davis, 1983
A.B., Economics, Ripon College, 1981

Distinguishing Qualifications

- Experienced Project Manager that has established strategic financial plans and designed rates for some of the nation's largest, most complex infrastructure programs and has secured acceptance of major, multi-year rate increases in politically charged environments.
- Expert in regionalization, facilitation of complex decisions affecting diverse stakeholder groups, evaluation of public/private partnerships, and strategic business planning.
- National leadership roles in the water industry including the Water Environment Federation (WEF) Utility Management Committee and American Water Works Association's (AWWA) Competitive Practices and Rates and Charges Committees.

Expert Witness Depositions and Testimony

- Direct Testimony by Declaration (2014) - Superior Court Of California, County of Los Angeles, Central District, Cities of Cerritos, Downey and Signal Hill vs. Water Replenishment District of Southern California, Lead Case No. Bs128136
- Expert Witness Testimony (2013) – Nova Scotia Utility and Review Board: In the Matter of a Joint Application by the Halifax Regional Water Commission and the Halifax-Dartmouth Bridge Commission for a Determination of Appropriate Charges Related to the Use of the Angus L. Macdonald. (M06127)
- Expert Report (2013) - San Diego County Water Authority v. Metropolitan Water District of Southern California, Case No: CPF-10-510830 and CPF-12-512466, Superior Court of California, County of San Francisco, regarding rate setting challenges.
- Expert Witness Testimony (2013) –Hawaii Public Utilities Commission, In the Matter of the Application of Hawaiian Beaches Water Company, Inc., for review and approval of rate increases; revised rate schedules, Docket No. 2013-0203.
- Deposition And Expert Witness Testimony (2013): United States Bankruptcy Court, Northern District Of Alabama, Southern Division, In Re: Jefferson County, Alabama, a political subdivision of the State Of Alabama, Debtor, Case No.: 11-05736-Tbb, Chapter 9, The Bank Of New York Mellon as Indenture Trustee, et al., Plaintiffs v. Jefferson County, Alabama, Defendant, AP No.: 12-00016-Tbb,
- Expert Witness Testimony (2013) – Nova Scotia Utility and Review Board: Application for the Approval of a Schedule of Rates and Charges and Schedule of Rules and Regulations for the Delivery of Water, Wastewater and Stormwater Services, Matter No. M05463

- Expert Witness Testimony (2012) - Public Service Commission of Wisconsin: Application of City of Waukesha Water Utility, Waukesha County, Wisconsin, for Authority to Increase Water Rates Docket No. 6240-WR-107

- Expert Witness Testimony (2009-2011) – United States District Court, Northern District of Georgia, Atlanta Division, United States of American and the State of Georgia, Plaintiffs v. The City of Atlanta, Defendant, Civil Action File No. 1-98-CV-1956-TWT. (various hearings re: Schedule Extension, Service Delivery Strategy)

- Expert Witness Testimony (2012) – Public Service Commission of Wisconsin: Application of Oak Creek Water and Sewer Utility For Authority to Increase Water Rates, Docket No. 4310-WR-104

- Expert Witness Testimony (2011) – Nova Scotia Utility and Review Board: Application of the Halifax Regional Water Commission for approval of a Cost of Service and Rate Design Methodology (NSUARB-W-HRWC-R-11)

- Expert Witness Testimony (2010, 2014) – Public Service Commission of Wisconsin: Application of Milwaukee Water Works, Milwaukee Water Works, Milwaukee County for Authority to Increase Water Rates, Docket No. 3720-WR-107 and Docket No. 3720-WR-108

- Deposition (2010): The Bank of New York v. Jefferson County, Alabama, Civil Action No. CV-2009-02318.
- Expert Witness Testimony (2009) – Illinois Commerce Commission, Illinois-American Water Company, Proposed general increase in water and sewer rates, Docket No: 07-0507

- Expert Witness Testimony (2009) - In the Court of Appeals of Georgia; Fulton County Georgia et al. v. City of Atlanta, A08A2364

Selected Key Project Experience

For the U.S. Bankruptcy Court, Eastern District of Michigan, Southern Division Eric Rothstein has served as an independent utility advisor for mediation related to the creation of the Great Lakes Water Authority (GLWA). Following execution of a Memorandum of Understanding and Articles of Incorporation by the Incorporating Municipalities (City of Detroit, Macomb, Oakland and Wayne counties, and the State of Michigan), Mr. Rothstein was appointed to serve as Implementation Planning Program Manager for the standup of the GLWA – a regional utility serving approximately 40% of the population of the State of Michigan.

For **Water Replenishment District of Southern California**, Eric Rothstein was engaged to provide an expert report related to the consistency of the District's rate setting requirements with industry-standard practices contemplating proportionate distribution of cost responsibilities based on cost causation. These practices are consistent with prescripts of State of California law.

For Jefferson County, Alabama, Eric Rothstein has served as the County's rate consultant since 2010. He has reviewed cost-of service analyses and alternative rate proposals to address the County's outstanding sewer warrant obligations, developed revisions to its sewer rates approved in November 2012, and again in September 2013, and is leading strategic financial planning related to the County's bankruptcy Plan of Adjustment. Mr. Rothstein has been deposed and provided expert witness testimony in various court proceedings stemming from the County's declaration of bankruptcy in 2011, and has led development of a Municipal Advisor Report related to a planned Series 2013 Sewer Warrant issue to effectuate the County's exit from bankruptcy.

For the **Halifax Regional Water Commission**, Eric Rothstein led development of a Cost of Service and Rate Design report to the Nova Scotia Utility and Accounting Review Board (NSUARB Docket No. NSUARB-W-

HRWC-R-11), in response to the Board's Order and Decision to hold separate hearings to determine appropriate ratemaking methodologies for Canada's first regulated water, wastewater and stormwater utility. Eric led preparation of the report and the development of cost allocation and rate design models to illustrate the implications of alternative methodological approaches. Eric supported development of HRWC's subsequent application for water, wastewater and stormwater rates filed with the NSUARB in December 2012 and provided expert witness testimony in support thereof in April 2012. In April 2014, Eric prepared a HRWC Cost Shares for Use of the Angus L. Macdonald Bridge and provided expert witness testimony in M06127 - Halifax-Dartmouth Bridge Commission/Halifax Regional Water Commission: Waterline on the Angus L. MacDonald Bridge - HDBC-G-14

For the **City of Atlanta**, since 2004, Mr. Rothstein has served as the Department of Watershed Management's primary coordinator for its revenue bond issues used to finance its $3 billion wastewater Consent Decree program. This has included issues in 2004, 2008, 2009 (2), 2013 and 2015 and, in 2006, implementation of its Tax-Exempt Commercial Paper program with a shelf registration of $1.2 billion. Mr. Rothstein led development of the Department's *Financial Capability Based Schedule Extension Request Report* used to secure the City's 13-year extension of its wastewater Consent Decree schedule. He prepared each of the Department's Financial Capability Assessment filings. He has led the development and updating of strategic financial planning tools for water and sewer rate development and policy-level consideration of overall program financing strategies (as well as detailed project expenditure, status, and schedule tracking).

For the **Egyptian Ministry of Housing, through a USAID contract**, Mr. Rothstein developed guidance on tariff setting, capital project prioritization, and strategic planning for the newly established water and wastewater sector regulatory agency. The project involved the development of a guidance manual, detailed financial planning and cost-of-service analysis modeling, and testing of financial analysis and prioritization tools with four major Egyptian utilities. Mr. Rothstein has also provided presentations on financial planning and strategic planning principles to USAID staff and Technical Assistance contractors.

For the **Milwaukee Wholesale Customers**, through sub-contracts with SHEH, Inc., Mr. Rothstein reviewed the Milwaukee Water Works rate increase applications filed in 2010 and 2014, reviewed pre-filed testimony, and offered expert witness testimony related to revenue requirements and appropriate rates of return at hearings before the Wisconsin Public Service Commission.

For several wastewater permittees facing Consent Decrees including the **City of Akron, East Bay Municipal Utility District, Northeast Ohio Regional Sewer District, Metropolitan Sewer District of St. Louis, and the City and County of Honolulu**, Mr. Rothstein has assisted in the conduct of financial capability assessments per EPA prescribed methodologies and in the development of alternative approaches to assessment that more appropriately reflect utility capital financing options. These efforts have been used in the formulation of negotiation positions related to the scope and schedule of potential Consent Decree provisions. Mr. Rothstein is currently engaged with the **City of Peoria, IL** and with the **Guam Waterworks Authority**, in similar Consent Decree negotiations.

For the **National Association of Clean-Water Agencies**, Mr. Rothstein has served as Principal Author for the development of several of the association's white papers and publications related to Financial Capability Assessments used to develop wastewater Consent Decree schedules. These publications include NACWA's *Financial Capability and Affordability in Wet Weather Negotiations* (2007), and *The Evolving Landscape for Financial Capability Assessment: Clean Water Act Negotiations and the Opportunities of Integrated Planning* (2013). These papers provide critical reviews of the U.S. Environmental Protection Agency's (EPA's) established policies and guidance on financial capability assessments for wet weather programs and offers practical guidance for negotiations on enforcement policies and practices related to consideration of financial capability.

For the **City of Winnipeg, Manitoba**, Mr. Rothstein served as Project Manager for a comprehensive cost-of-service rate studies for the City's water, wastewater and stormwater systems conducted in 1997 and 2012. In 1997, the consulting team facilitated decision-making through an extensive public involvement process that featured monthly meetings of a Citizen's Advisory Committee comprised of a diverse set of stakeholder representatives. For both studies, detailed cost allocation analyses were conducted and customized computer rate analysis models developed to facilitate rate updating for budgetary changes, revision to cost allocations, and rate design modifications.

For **Augusta-Richmond County, Georgia,** Mr. Rothstein has provided strategic financial planning, bond feasibility and comprehensive cost-of-service rate assistance since 2000. Strategic financial planning facilitated the City's adoption of a seven-year, 11 percent per annum rate increase schedule to support infrastructure re-investment in excess of $400 million. Mr. Rothstein managed 3 bond feasibility studies over the course of the program implementation, helping the County to secure strong credit ratings and favorable financing. A cost-of-service study in 2004 involved special queries of a new billing system for development of user characteristic data and consideration of specific cost assignments for previously unsewered portions of the County's wastewater system.

Previous to his work as a utility management consultant, Mr. Rothstein served in several financial management positions for the **City of Austin, Texas**. In this capacity, he directed staffs of up to 22 members in utility ratemaking, evaluation of regionalization alternatives and proposed utility investments, analysis of capital financing options, internal control evaluation, and revenue forecasting.

Certifications / Professional Licenses

Certified Public Accountant
Oregon License No. 7998, June 1995

Membership in Professional Organizations

American Water Works Association

- Strategic Management Practices Committee
- Rates and Charges Sub-Committee
    - Chair, *Water Rate Structures and Pricing*, AWWA M34
    - Member, *Water Rates*, AWWA, M1

International Water Association

- Economics and Statistics Specialist Group
- Editorial Board, Utility Management International (2008-2012)

National Association of Clean Water Agencies

- Utility Management Committee

Water Environment Federation

- Utility Management Committee
    - Chair, Finance and Administration Sub-Committee
    - Chair, *Financing and Charges for Wastewater Systems* (M27), Manual of Practice Task Force
    - Coordinator, Asset Management Hot Topics Workshops, 2005 – 2007
- Technical Practice Committee, Vice Chair

Selected Publications

Sustainability Reporting Statements for Wastewater Systems, WEF Special Publication, October 2012 (Task Force Chair, Chapter 1 Author)

"The Business Case for Low Income Affordability Programs," Proceedings of the AWWA-WEF Utility Management Conference, Miami, FL, February 2012.

GBMSD's Strategic Planning: A Portfolio Management Approach to Effective Utility Management" with Tom Sigmund, Proceedings of the AWWA-WEF Utility Management Conference, Miami, FL, February 2012.

"Financial Sustainability in an Uncertain World" with Debbie Galardi, *Water Utility Management International*, vol. 6, issue 4 (December 2011) pp. 23-27.

"Developing A Financially Sustainable Capital Program to Meet Consent Decree Requirements", *Proceedings of the Water Environment Federation Technology Exposition and Conference (WEFTEC), October 2009*

"Regionalization of Water Service in Central Florida: Capacity Rights Contracting for the Yankee Lake WTF", *Proceedings of the American Water Works Association (AWWA) Annual Conference and Exposition, June 2007 and the Florida Water Resources Conference,* April 2007

"Affordability Tools," Section 8: *Affordability Special Publication*, Water Environment Federation, 2007

"Tough Choices in Paradise: Capital Project Prioritization on Oahu," with Ross Kaneko, Barry Usagawa, Scott Muraoka and Jason Takaki, *Proceedings of the American Water Works Association (AWWA) – Water Environment Federation (WEF) Joint Management Conference*, February 2007 and *Proceedings of the American Water Works Association (AWWA) Annual Conference and Exposition*, June 2007.

"Financial Sustainability As A Foundation For Infrastructure Development And Management: Best Practices" with Debbie Galardi, Water Utility Management International, vol. 2, issue 1 (March 2007) pp. 10-13

Selected Presentations / Seminars

"Exit from Bankruptcy: Jefferson County, Alabama's Historic Plan of Adjustment and $1.7 Billion Sewer Warrant Issue Sustainability Reporting Statements for Wastewater Systems", Utility Management Conference, Austin, TX, February 2015.

"The Business Case for Sustainability Reporting", Sustainability Reporting Statements for Wastewater Systems Special Publication Workshop, WEFTEC 2013, October 2013.

"Building Support for Rate Increases" Central States Water Environment Federation, May 17, 2013

"Which Direction is Your Utility Heading", 2012 Illinois City Managers Association, Galena, Illinois, June 28, 2012

"Financial Sustainability in an Uncertain World", Illinois AWWA, March 2012

"Doing More With Less: Financial Planning and Management in Stressful Times", Central States Water Environment Federation Wisconsin Government Affairs Seminar, February 23, 2012

"Financing Water Utilities' Sustainability Initiatives: Challenging Institutionalized Governance and Market Failures" with Debbie Galardi, Proceedings of the 2012 AWWA Water Sustainability Conference, Portland, Oregon, March 2012.

"Building Support for Rate Increases", 2012 Central States Water Environment Association (CSWEA) Government Affairs Seminar, Madison, WI, February 2012.

"A Season on The Brink: Atlanta's Financial Capability Based Consent Decree Extension" presented at the 2011 AWWA-WEF Utility Management Conference, Denver, CO, February 2011.

"Making Wet Weather Affordable: Never Let A Good Crisis Go To Waste", National Association of Clean Water Agencies Winter Conference, Fort Lauderdale, FL, January 2011.

"Water Efficiency Programs: Risk Management for an Uncertain World", Wisconsin Water Association Conservation Seminar, September 2011.

"Financial Capability Assessment Revisited: Structuring Consent Decrees To Recognize Capital Financing Constraints And Market Change" presented at the 2010 AWWA-WEF Utility Management Conference, San Francisco, CA, February 2010.

"Rock River Water Reclamation District Strategic Financial Planning", Illinois Association of Wastewater Agencies, September 17, 2009

"Socially Responsible Investment in Water Quality: Balancing Community Priorities and Pricing", American Water Works Association Annual Conference and Exposition, Atlanta, GA, June 2009.

"Adaptive Financial Management", CSO Partnership, Chicago, April 2009

"Capital Financing Strategies and Constraints: Lessons of the Political Economy ", National Association of Clean Water Agencies Winter Conference, Atlanta, GA, February 2009.

"Atlanta's Water and Wastewater System Financing: An Update", American Water Works Association Annual Conference and Exposition, Atlanta, GA, June 2008.

"Inside/Outside Rates: Forthcoming Refinements in the M1 Manual", American Water Works Association Annual Conference and Exposition, Atlanta, GA, June 2008.

"Financial Capability Assessments & Affordability: Implications of EPA Criteria", American Water Works Association Annual Conference and Exposition, June 2007

"Proven Financial Management Fundamentals Demonstrated Through National & International Case Studies" presented at the Illinois Section, American Water Works Association conference, Springfield, IL, March 2007

"National Trends Define Strategic Planning Imperatives," presented at the Wisconsin Section, American Water Works Association conference, Wisconsin Dells, WI, September 2006, and Wisconsin Water Environment Association Government Affairs seminar, Madison, WI, March 2007.

"Financial Capability and the Cost of Clean" presented at the National Association of Clean Water Agencies, Winter Conference, St. Petersburg, FL; February 2007.

To: Governor Rick Snyder
From: JA
Re: Flint After Action Meeting
Date: October 20, 2015

Governor,

Attached is a draft press release to be reviewed with the after action team tomorrow morning.

In addition, Rich & Harvey are vetting & reaching out to potential Flint resident to join the task force:

1) Dr. Lawrence Reynolds, MD of Mott Children's Hospital, long standing and respected member of the Flint community, speaks his mind and very professional.

Rich will invite him to the meeting tomorrow by phone or in person.

Attached are resumes for Kolb, Dr. Davis, and Eric Rothstein.

Draft Agenda:

1) Introductions
2) Mission of Task Force
3) Background Info
4) Discussion of Timeline
5) Q & A from Task Force Members
6) Communications Strategy/Review Press Release

Suggested Goals for Task Force:

1) Thorough review of all steps taken in Flint regarding switch to Flint River and back GLWA.
    a. Create Timeline of actions
    b. Establish why each action was taken
2) Review of role of Feds, EM, State, City Council, and Mayor in process.
    a. Establish best practices for Feds, State, Local, and EM to work together in future situations
    b. Indicate where coordination could have been and should be improved
3) Review of DEQ & DHHS actions & protocols
    a. Did DEQ & DHHS follow the proper procedures?
    b. Do the procedures need to change?
4) Provide guidance for switch back to GWLA
    a. Ensure proper corrosion controls & testing is in place
    b. Highlight steps for eventual switch to Karegnondi
5) Testing Beyond Flint
    a. What practices need to change in communities outside of Flint?
    b. What change in law is recommended to ensure all Michiganders are drinking clean water?

Suggested Timeline:

The task force members have indicated that 2 months is the earliest possible time to properly conduct a full after action report. In reality, they suggest 3 months is more feasible. Given the holidays, a 2 month timeline puts us roughly right around Christmas. I would suggest we set a 3 month goal.

Oct 21: After Action Team Announced
Jan 8: Preliminary After Action Report Submitted for Internal Review
Jan 22: Final After Action Report Submitted
Week of January 25: Report Released

RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

BRIAN CALLEY
LT. GOVERNOR

Contacts: Sara Wurfel or Dave Murray 517-335-6397	**FOR IMMEDIATE RELEASE** Wednesday, Oct. 21, 2015

Gov. Rick Snyder announces formation of Flint Water After Action Report Commission

Experts will provide ongoing monitoring of city water system

LANSING, Mich. – Gov. Rick Snyder today announced a new task force to review the state's actions regarding water usage and testing in Flint. The commission will conduct a thorough review and lay out recommendations on future guidelines for water testing. It will also monitor the transition of Flint's city water system back to the Great Lakes Water Authority, and its eventual transition to the Karegnondi Water Authority pipeline.

The commission will be co-chaired by Ken Sikkema of Public Sector Consultants and Chris Kolb, of the Michigan Environmental Council. Also serving will be Dr. Matthew Davis of the University of Michigan Health System, and Eric Rothstein, of the Galardi Rothstein Group.

"As stated previously, transitioning back to the Great Lakes Water Authority is a good first step to protecting public health in Flint, but it's not the last step," Snyder said. "Bringing in outside experts to evaluate our actions and help monitor and advise on technical issues will be key to continuing work on the comprehensive action plan and ensuring safe drinking water for all the citizens of Flint."

Ken Sikkema is a senior policy fellow at Public Sector Consultants, where he specializes in public finance, environment, and energy policy. Prior to joining the firm, Sikkema served in both the Michigan House and Senate, culminating with four years as Senate Majority Leader. He has also served as both an adjunct and visiting professor at Grand Valley State University.

Chris Kolb is president of the Michigan Environmental Council, a statewide coalition of 70 environmental, public health and faith-based nonprofit groups. Before joining the MEC, Kolb represented Ann Arbor in the state House for six years and served eight years on the Ann Arbor City Council. He has been president of the MEC for eight years.

Matthew Davis, M.D., M.A.P.P., is Professor of Pediatrics and Internal Medicine at the University of Michigan Health System and Professor of Public Policy at the Gerald R. Ford School at the University of Michigan, having joined the faculty in 2000. He is the founding Director of the C.S. Mott Children's Hospital National Poll on Children's Health and the National Voices Project. Dr. Davis also previously served as the Chief Medical Executive of the Michigan Department of Community Health/Department of Health and Human Services.

Eric Rothstein is a national water issues consultant and principal at the Galardi Rothstein Group. He served as an independent advisor on the creation of the Great Lakes Water Authority. Rothstein also has served as Jefferson County, Alabama's rate consultant and municipal advisor for litigation related to the county's bankruptcy and issuance of $1.7 billion in sewer warrants and led strategic financial planning for the City of Atlanta's Department of Watershed Management. He has more than 30 years of experience in water, wastewater and stormwater utility finance and rate-making assessments.

As Gov. Snyder previously stated, reconnecting with the authority will not completely resolve the city's problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control.

To best protect public health, state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead exposure. The Michigan Departments of Environmental Quality is continuing to provide free water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

####

Subject:	Agen/Quebbeman/Weber re Flint task force
Location:	JA
Start:	Fri 11/13/2015 8:30 AM
End:	Fri 11/13/2015 9:00 AM
Recurrence:	(none)
Meeting Status:	Meeting organizer
Organizer:	Agen, Jarrod (GOV)
Required Attendees:	Weber, Travis (GOV); Thomet, Ruth (GOV); Quebbeman, Marsha (GOV)

From: Hollins, Harvey (GOV)
Sent: Thursday, October 08, 2015 8:08 AM
To: Baird, Richard (GOV)
Cc: Agen, Jarrod (GOV); Biehl, Laura (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV)
Subject: Re: URGENT review please -- Draft Flint water release

Listing names is going to be problematic since there are many firms that are engaged of which I am unaware:
1) [redacted]
2) GM
3) Flint Community Foundation
4) United Way of Flint
5) Absopure
6) Home Depot
7) UAW locals
8) Similac
9) A number of faith based organizations
10) Flint Food Bank
11) McClaren Hospital
12) Hurley Hospital

There are others that have contributed that I don't have information on.

It would be easier say something like, "I want to thank the number of people, organizations, philanthropic and corporations that have engaged to address the problem. They didn't point fingers and access blame, they saw the problem and contributed to solutions, and that action says something special about this state, we rally to help each other."

On Oct 7, 2015, at 7:12 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:

> I think this looks good but are we missing an opportunity to shout out all the entities that have stepped up to help? GM, Home Depot, etc. etc.?
>
> If Harvey has the full list, perhaps it could even be attached as an addendum. The point is that a lot of people did come together to address the problem, including the private sector and various volunteer organizations. I think it says something special about this state rallying to help one of its cities.
>
> Rich

Best,
Harvey Hollins III, Director
Governor's Office of Urban Initiatives

313.456.4994 (office)
[redacted](Cell)

Begin forwarded message:

From: "Biehl, Laura (GOV)" <BiehlL@michigan.gov>
Date: October 7, 2015 at 6:46:28 PM EDT
To: "Murray, David (GOV)" <MurrayD1@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Wurfel, Sara (GOV)" <Wurfels@michigan.gov>, "Heaton, Anna (GOV)" <HeatonA@michigan.gov>, "Kennedy, Jordan (GOV)" <KennedyJ4@michigan.gov>, "Brown, Jessica (GOV)" <BrownJ53@michigan.gov>, "Paciorek, Josh (GOV)" <Pacioreki@michigan.gov>, "Lasher, Geralyn (DHHS)" <lasherg@michigan.gov>, "Minicuci, Angela (DHHS)" <MinicuciA@michigan.gov>, "Eisner, Jennifer (DHHS)" <EisnerJ@michigan.gov>, "Wurfel, Sara (GOV)" <Wurfels@michigan.gov>, "Tommasulo, Karen (DEQ)" <TommasuloK@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Posthumus, Dick (GOV)" <Posthumusd@michigan.gov>, "Baird, Richard (GOV)" <bairdr@michigan.gov>, "Calley, Brian (GOV)" <[redacted]>, "Forstner, Nathaniel (GOV)" <forstnern1@michigan.gov>
Subject: RE: URGENT review please -- Draft Flint water release

See new version attached. Small revisions made and placeholders added for Mayor and Mott Foundation Quotes.

From: Murray, David (GOV)
Sent: Wednesday, October 07, 2015 6:12 PM
To: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Biehl, Laura (GOV) <BiehlL@michigan.gov>; Heaton, Anna (GOV) <HeatonA@michigan.gov>; Kennedy, Jordan (GOV) <KennedyJ4@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>; Paciorek, Josh (GOV) <Pacioreki@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Minicuci, Angela (DHHS) <MinicuciA@michigan.gov>; Eisner, Jennifer (DHHS) <EisnerJ@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Tommasulo, Karen (DEQ) <TommasuloK@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Calley, Brian (GOV) <[redacted]; Forstner, Nathaniel (GOV) <forstnern1@michigan.gov>
Subject: URGENT review please -- Draft Flint water release

Team,

Please review this draft press release for the Thursday announcement in Flint. This incorporates some suggested edits to the strong draft from DEQ earlier today.

Thank you very much.

Gov. Rick Snyder: Move back to Detroit water provides best protection for public health in Flint

State, Mott Foundation and city form partnership to fund switch

FLINT, Mich. – Flint families and children will be better protected by reconnecting with the Great Lakes Water Authority as the source of the city's drinking water, Gov. Rick Snyder said.

Snyder said Thursday that he will request the state Legislature to provide a portion of the $12 million needed to reconnect with the authority, with the Flint city government providing $2 million and the Charles Stewart Mott Foundation donating $4 million.

The Michigan Department of Health and Human Services and the Department of Environmental Quality today also committed an additional $3.5 million for water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

Flint city leaders requested the state's help to fund the reconnection after a Wednesday meeting of Flint's Technical Advisory Committee. Flint's move to the Great Lakes Water Authority is expected to cost about $1.3 million per month until the Karegnondi Water Authority is completed next summer.

"All Flint residents need clean, safe drinking water," Snyder said. "The technical experts helping the city on its water advisory all agree this move back to the Great Lakes Water Authority provides the best public health protection for children and families. This effort today is the result of people coming together to solve a problem. I appreciate Detroit's willingness to reconnect with Flint, the Mott Foundation's generous donation, and the dedication of all parties to come together to protect Flint families and children."

The move to Detroit water, which is drawn from Lake Huron, carries many public health benefits. As large bodies of water, the Great Lakes are naturally prone to fewer problems from large rain events and other runoff issues that can be present in shallower rivers. Additionally, the Great Lakes Water Authority has already fully optimized its corrosion control, using phosphates to help coat the insides of pipes and prevent lead from leaching into the water.

However, reconnecting with the authority will not completely resolve the city's problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control. Additionally, some households in the city could experience lead in their drinking water until all lead pipes and plumbing are replaced.

To best protect public health, Snyder said state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead in water.

Free filters are available for current MDHHS clients at the 125 E. Union St. or 4809 Clio Road MDHHS office locations.

For residents who are not currently enrolled in MDHHS assistance programs, free filters are available at the Genesee County Community Action Resource Department offices at 2727 Lippincott and 601 North Saginaw in Flint. Staff will be at all four locations from 9 a.m. to 4 p.m., Monday through Friday, to distribute filters and assist residents who have questions about proper installation.

At the Lippincott location only, extended hours will be offered this weekend, including until 7 p.m. on Thursday and Friday and from 10 a.m. to 2 p.m. on Saturday.

Other good practices for residents concerned about lead include turning on the cold water tap and running the water until it's as cold as it will go. Additionally, only use cold water for cooking, drinking and especially mixing baby formula.

School test results released; more investigation planned

The state today also released the first results from its lead screening program in schools and homes. Of 37 total samples taken at 13 buildings, four samples spread over three buildings exceeded the federal action level of 15 parts per billion.

However, this sampling provides only an initial screen, and the state is committing to further testing water and inspecting plumbing at these schools. Until testing is complete, schools are advised to continue using bottled water and filtration as a precaution to protect children.

In addition, free testing is still available for any other Flint school, including daycares and Head Starts. Free testing is also available for any Flint resident.

Additional information, including more detailed lead screening results, is available at www.michigan.gov/flintwater.

###

Dave Murray
Deputy Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]mobile
Twitter:@michigandmurray

<151008 Flint water release_V2.docx>

From: Clayton, Stacie (GOV)
Sent: Tuesday, January 27, 2015 3:11 PM
To: Hollins, Harvey (GOV); Wurfel, Sara (GOV)
Cc: Agen, Jarrod (GOV); Murray, David (GOV)
Subject: RE: Flint water issue

Greetings All,

The meetings on Wednesday that Harvey referenced on Senior Staff call regarding the Flint water issue are actually being facilitated by Dick Posthumus' Office. They will be held in the Romney building as follows:

10:00am - 11:00am (Internal Meeting in the 2nd Floor Executive Conference Room) Dick Posthumus Dennis Muchmore John Walsh Beth Clement Tom Saxton Harvey Hollins

2:00pm-3:pm (Full Meeting in the Governor's Conference Room) Jerry Ambrose Mayor Walling Howard Croft, Director of the Department of Public Works Tom Saxton Dick Posthumus Dennis Muchmore Beth Clement Sen. Ananich Andy Leavitt John Walsh Harvey Hollins

-----Original Message-----
From: Hollins, Harvey (GOV)
Sent: Tuesday, January 27, 2015 2:30 PM
To: Wurfel, Sara (GOV)
Cc: Agen, Jarrod (GOV); Murray, David (GOV); Clayton, Stacie (GOV)
Subject: RE: Flint water issue

Stacie will set it up.

-----Original Message-----
From: Wurfel, Sara (GOV)
Sent: Tuesday, January 27, 2015 2:27 PM
To: Hollins, Harvey (GOV)
Cc: Agen, Jarrod (GOV); Murray, David (GOV); Clayton, Stacie (GOV)
Subject: Flint water issue

Hi there Harvey -

Just following up on this per brief conversation/mention at yesterday's senior staff meeting and Dave's voice mail to you as well.

I believe you had indicated you had a meeting on this tomorrow, yes?

We need to touch base and get all facts on this situation ASAP. Turning into unfortunate and unnecessary PR issue that we're trying to work with Treasury and DEQ to be on top of, stem, find resolution, etc.

Please call our office today to connect with Dave (as our lead on this) or myself or Jarrod if he's not available for some reason.

Thanks much,
SW

Sent from my iPad

From: Muchmore, Dennis (GOV)
Sent: Friday, February 06, 2015 4:46 PM
To: Agen, Jarrod (GOV); Baird, Richard (GOV); Clement, Elizabeth (GOV)
Subject: RE: Flint Water

Keep in mind we paid for the consultant.

From: Agen, Jarrod (GOV)
Sent: Friday, February 06, 2015 3:59 PM
To: Muchmore, Dennis (GOV); Baird, Richard (GOV); Clement, Elizabeth (GOV)
Subject: FW: Flint Water

Heads up -- given all the good coverage we got from our Flint water event earlier this week, this seems like an attempt to throw us back under the bus and draw more controversy/publicity to the water issue.
I would advise we stir very clear of this event or helping to orchestrate it.

From: Kelly Rossman-McKinney [redacted]
Sent: Friday, February 06, 2015 3:22 PM
To: Murray, David (GOV); Hollins, Harvey (GOV)
Cc: Clayton, Stacie (GOV)
Subject: Flint Water

Dave & Harvey: We are working with Veolia North America, the water consulting team Flint has hired to "assess the situation." We're planning to hold a media roundtable with city officials on Tuesday to introduce the Veolia team to local reporters. Gerry Ambrose suggested we invite some of the folks you invited to attend the newser earlier this week. Is that a list you can share with me or would it be better for the invite to come from you or the EM directly? I don't have a specific time yet but can provide that information for you when it is available. What do you think?

Kelly

PS I forgot to say thanks!!!!

Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.
https://sites.google.com/a/truscottrossman.com/oct17-home/email-logo.png

Kelly Rossman-McKinney
CEO
Truscott Rossman • truscottrossman.com
Boji Tower • 124 W. Allegan St., Ste. 800 • Lansing, MI 48933
200 Renaissance Center, Ste. 3160 • Detroit, MI 48243
125 Ottawa Ave. N.W., Ste 235 • Grand Rapids, MI 49503

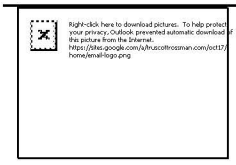
Cell: [redacted]
Office: (517) 487-9320
Fax: (517) 487-5060

From: Muchmore, Dennis (GOV)
Sent: Tuesday, March 03, 2015 10:04 PM
To: Workman, Wayne (TREASURY)
Cc: Clement, Elizabeth (GOV); Saxton, Thomas (Treasury); Agen, Jarrod (GOV); Hollins, Harvey (GOV)
Subject: Re: Contaminated Drink Water if Flint

No question although the city could use a little positive publicity right now.

On Mar 3, 2015, at 11:57 AM, Workman, Wayne (TREASURY) <WorkmanW@michigan.gov> wrote:

> If this does happen, we need to figure who would hand out the water. It should not be the City. It would undercut every point they are making. It probably should also be reserved for people who can't afford to buy water.
>
> ---
>
> **From:** Muchmore, Dennis (GOV)
> **Sent:** Monday, March 02, 2015 11:57 PM
> **To:** Clement, Elizabeth (GOV); Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); Agen, Jarrod (GOV); Hollins, Harvey (GOV)
> **Subject:** Fwd: Contaminated Drink Water if Flint
>
> Might want to get Jarrod and Terry Stanton on this as well as Harvey. Otherwise it will get out of hand. It's in the city's long term interest to make the KWA work and we can make the river water safe, but we need to work with the ministers this week to help them out. It's tough for everyday people to listen to financial issues and water mumbo jumbo when all they see is problems. You can't expect the ministers to hold the tide on this problem.
>
> How about cutting a deal with Ice Mountain or Bill Young and buying some water for the people for a time? $250K buys a lot of drinking water and we could distribute it through the churches while we continue to make the water even safer.
>
> If we procrastinate much longer in doing something direct we'll have real trouble.
>
> Sent from my iPhone
>
> Begin forwarded message:
>
> > **From:** Kelly Rossman-McKinney <krossman@truscottrossman.com>
> > **Date:** March 2, 2015 at 8:26:34 AM EST
> > **To:** Dennis Muchmore <muchmored@michigan.gov>
> > **Subject: FW: Contaminated Drink Water if Flint**
> >
> > Please call me so we can discuss. This issue is out of hand. We do pro bono work for the city on an as-needed basis, plus we also work for Veolia, the water consultant they brought on board. I'm concerned about the implications that this may have racial overtones. Ugh.



Kelly Rossman-McKinney
CEO
Truscott Rossman • truscottrossman.com
Boji Tower • 124 W. Allegan St., Ste. 800 • Lansing, MI 48933
200 Renaissance Center, Ste. 3160 • Detroit, MI 48243
125 Ottawa Ave. N.W., Ste 235 • Grand Rapids, MI 49503

Cell: [redacted]
Office: (517) 487-9320
Fax: (517) 487-5080

From: Gerald Ambrose [mailto:gambrose@cityofflint.com]
Sent: Monday, March 02, 2015 7:36 AM
To: Kelly Rossman-McKinney
Subject: Fwd: Contaminated Drink Water if Flint

Welcome to Monday. Please advise asap as to any next steps you recommend, if any.

---------- Forwarded message ----------
From: "Dayne Walling" <dwalling@cityofflint.com>
Date: Mar 2, 2015 7:29 AM
Subject: Fwd: Contaminated Drink Water if Flint
To: "Gerald Ambrose" <gambrose@cityofflint.com>, "Natasha Henderson" <nhenderson@cityofflint.com>, "Peter Bade" <pbade@cityofflint.com>
Cc:

FYI:
---------- Forwarded message ----------
From: [redacted]
Date: Sat, Feb 28, 2015 at 2:09 PM
Subject: Contaminated Drink Water if Flint
To: [redacted]
Cc: "mail103@foxtv.com" <mail103@foxtv.com>, WFLT 1420 Am <wflt1420am@aol.com>, Abc12news <abc12news@abc12.com>, Wnem Desk <wnem@wnem.com>, Scot Johnson Wnem <scot.johnson@wnem.com>, "news@wjr.com" <news@wjr.com>, "assignmentdesk@wdiv.com" <assignmentdesk@wdiv.com>, "D. Adams" <dadams5@mlive.com>, fox2newsdesk@foxtv.com, "nikkibednarski@cumulus.com" <nikkibednarski@cumulus.com>, "mageorge@freepress.com" <mageorge@freepress.com>, "B. Thorne" <bthorne@flintjournal.com>, [redacted] "wxyzdesk@wxyz.com" <wxyzdesk@wxyz.com>, "wflt1420@aol.com" <wflt1420@aol.com>, "cspacouriernews@yahoo.com" <cspacouriernews@yahoo.com>, "dshepardson@depnewss.com" <dshepardson@depnewss.com>, "promotion@wsmh.com" <promotion@wsmh.com>, Eric Mays <emays@cityofflint.com>, Emergency Manager <em@cityofflint.com>, Brenda Williams <brwilliams@visionmpinc.com>, [redacted]

[redacted], Vicky Van Buren <vvanburen@cityofflint.com>, Jackie Poplar <jpoplar@cityofflint.com>, [redacted], Wantwaz Davis <wdavis@cityofflint.com>, [redacted] "hwinford@cityofflint.com" <hwinford@cityofflint.com>, Inez Brown <ibrown@cityofflint.com>, Peter Bade <pbade@cityofflint.com>, "knelson@cityofflint.com" <knelson@cityofflint.com>, [redacted] Scott Kincaid <skincaid@cityofflint.com>, [redacted] "rfonger1@mlive.com" <rfonger1@mlive.com>, [redacted], Dyane Walling <dwalling@cityofflint.com>, [redacted]

Good Afternoon, Attorney Randall!

Thank you for returning my call on the other day! Again, my concern as is others in the City of Flint, Michigan regarding the drinking water source for the water customers of the City of Flint. I have enclosed one of the lasted article written by the local newspaper, "The Flint Journal" regarding the Flint River water. Needless to say, the water is dangerous to our health! GM will not use the water at its Engine Plant in Flint to wash engines parts!

We need your help to guide us to the profession people that know about "Bad Drinking Water and Environmental Racism". I truly believe it's "Environmental Racism" at its worst or should I say best! As a resident of flint, Past President of the Flint Branch NAACP, newly elected VP of the Flint Branch NAACP and the most listen to broadcast host during that time on Flint's premiere gospel station, WFLT 1420AM, each Saturday morning from 9:30-10AM, I have challenged our elected officials to step up to the plate and fix this water problem!

I'll be asking the Executive Committee of the Flint Branch of the NAACP to request from our National Office if we can proceed with a possible "Environmental Racism" lawsuit with their assistance and the assistance of other civil rights groups and others to "file briefs in support of our efforts against those parties involved with the changing and the using of the Flint River as our water drinking source.

The City of Flint has Emergency Manager #4 since our "takeover", and cares less about the residents or the water concerns of its Customers of Flint! Please help us with our problem by directing us to the right professional people. Please go to www.actionpa.org/fluoride/ej.html regarding "Environmental Racism" I have attached an article from the Flint Journal, and may Google other articles regarding the Flint's water source, including how we arrived to where we are on today.

Thank you very much in advance!!

I remain.

[redacted], Concerned Resident

--
Dayne Walling
Mayor, City of Flint
City Hall, 1101 S. Saginaw St.
Flint, MI 48502
810-766-7346
mayor@cityofflint.com
www.cityofflint.com
follow me on twitter at http://twitter.com/mayorwalling

From: Muchmore, Dennis (GOV)
Sent: Thursday, March 05, 2015 8:32 AM
To: Clement, Elizabeth (GOV)
Cc: Agen, Jarrod (GOV); Murray, David (GOV); Hollins, Harvey (GOV); Wurfel, Sara (GOV)
Subject: Re: FLINT JOURNAL : posted at 1 p.m. today.

Charles is the biggest blowhard in the state these days. I wish he would take all that energy and push it to solving problems instead of complaining all the time.

On Mar 3, 2015, at 3:29 PM, Wurfel, Brad (DEQ) <WurfelB@michigan.gov> wrote:

<image001.jpg>

Flint water almost like 'gas chambers for Jews,' says Sharpton group activist

Ron Fonger | rfonger1@mlive.com By **Ron Fonger | rfonger1@mlive.com** The Flint Journal
on March 03, 2015 at 12:54 PM, updated March 03, 2015 at 2:10 PM

The Rev. Charles Williams II speaks during a press conference for the National Action Network's coordinated response to the Trayvon Martin verdict in this 2013 Flint Journal file photo.Flint Journal file photo

FLINT -- The president of the Michigan chapter of Al Sharpton's National Action Network says Flint water is "almost as bad as gas chambers for Jews."

The Rev. Charles Williams II, speaking at a news conference and water giveaway in Flint on Monday, March 3, made the comment, which **appeared on television station WEYI-TV**.

The city of Flint issued a statement saying officials are "extremely disappointed" by the pastor's remarks, including his comparison of consumption of Flint's water to "genocide."

"We are extremely disappointed in Rev. Charles Williams' comments but certainly understand -- and share -- his frustration," the city statement says. "With that said, we find Rev. Williams' accusations are a gross misrepresentation of the Flint water condition and a wholly inappropriate comparison."

When contacted by The Flint Journal-MLive for comment today, Williams referred a reporter to his Twitter page.

Steven C. Low, executive director of the Flint Jewish Federation, called Williams' comments "an inappropriate invocation of the Holocaust" that "diminishes what survivors went through."

"Drawing such a comparison doesn't shed any light on the water problems," said Low, who called on Williams to apologize for his remarks.

The news conference Williams spoke at is one of several that have been held since Flint **notified customers in January** that the city is in violation of the Safe Drinking Water Act because of the level of total trihalomethanes (TTHM) in water tested during the last 10 months.

Outspoken **residents have since protested** the price, color, odor and overall quality of the water.

City officials have said Flint **water is safe for the vast majority** of the people to drink but warned in January notices that TTHM can pose increased health risks for those with a compromised immune system, the elderly, pregnant women and infants.

Testing during the **last two months has shown the city is meeting** all health and safety standards for water, and a consultant is expected to deliver a report this week, detailing recommendations for improving the quality of drinking water here.

Flint's water problems, including **multiple boil water advisories** last summer, bloomed after the city began using the Flint River as its drinking water source in April.

Prior to that switch, the city had used Lake Huron water, pre-treated and purchased from the city of Detroit.

The Flint statement says "some people may still have issues with discoloration, or do not like the taste of the (higher) mineral content river water (but) these do not amount to a safety issue."

Williams responded to a request for comment with a text message to The Journal, saying "quote my **Twitter feed**."

In a Twitter message, the pastor wrote, "I (hear) #flint city officials upset at my comparisons yesterday. They should use their anger 2 make sure resident aren't drinking death water."

In another message, Williams wrote, "Isn't it extreme to knowingly sell residents contaminated water people in #flint forced to buy liver disease water? What is that? #Genocide."

In addition to his work as president of NAN-Michigan, Williams is the pastor of King Solomon Baptist Church of Detroit.

This week was not Williams' first appearance in the spotlight in Flint.

In 2013, he demanded Hurley Medical Center officials answer charges that they granted a father's request that only white nurses care for his infant child.

The hospital eventually agreed to pay nearly $200,000 in total to three black nurses who sued the hospital after claiming they were discriminated against when they weren't allowed to treat that white baby.

NAN describes itself as one of the leading civil rights organizations in the nation with chapters throughout the United States. The organization was founded in 1991 by Sharpton.

*Ron Fonger is a reporter for The Flint Journal. Contact him at rfonger1@mlive.com or 810-247-9963. Follow him on **Twitter**, **Facebook** or **Google+**.*

© 2015 MLive.com. All rights reserved.

Brad Wurfel
Communications Director
Michigan Department of Environmental Quality
517-284-6713
[redacted] cell

From: Hollins, Harvey (GOV)
Sent: Thursday, March 05, 2015 8:58 AM
To: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV)
Cc: Agen, Jarrod (GOV); Murray, David (GOV); Wurfel, Sara (GOV)
Subject: RE: FLINT JOURNAL : posted at 1 p.m. today.

Sensationalism on the part of the media and Charles.

From: Muchmore, Dennis (GOV)
Sent: Thursday, March 05, 2015 8:32 AM
To: Clement, Elizabeth (GOV)
Cc: Agen, Jarrod (GOV); Murray, David (GOV); Hollins, Harvey (GOV); Wurfel, Sara (GOV)
Subject: Re: FLINT JOURNAL : posted at 1 p.m. today.

Charles is the biggest blowhard in the state these days. I wish he would take all that energy and push it to solving problems instead of complaining all the time.

On Mar 3, 2015, at 3:29 PM, Wurfel, Brad (DEQ) <WurfelB@michigan.gov> wrote:

<image001.jpg>

Flint water almost like 'gas chambers for Jews,' says Sharpton group activist

Ron Fonger | rfonger1@mlive.com By **Ron Fonger | rfonger1@mlive.com** The Flint Journal
on March 03, 2015 at 12:54 PM, updated March 03, 2015 at 2:10 PM

The Rev. Charles Williams II speaks during a press conference for the National Action Network's coordinated response to the Trayvon Martin verdict in this 2013 Flint Journal file photo.Flint Journal file photo

FLINT -- The president of the Michigan chapter of Al Sharpton's National Action Network says Flint water is "almost as bad as gas chambers for Jews."

The Rev. Charles Williams II, speaking at a news conference and water giveaway in Flint on Monday, March 3, made the comment, which **appeared on television station WEYI-TV**.

The city of Flint issued a statement saying officials are "extremely disappointed" by the pastor's remarks, including his comparison of consumption of Flint's water to "genocide."

"We are extremely disappointed in Rev. Charles Williams' comments but certainly understand -- and share -- his frustration," the city statement says. "With that said, we find Rev. Williams' accusations are a gross misrepresentation of the Flint water condition and a wholly inappropriate comparison."

When contacted by The Flint Journal-MLive for comment today, Williams referred a reporter to his Twitter page.

Steven C. Low, executive director of the Flint Jewish Federation, called Williams' comments "an inappropriate invocation of the Holocaust" that "diminishes what survivors went through."

"Drawing such a comparison doesn't shed any light on the water problems," said Low, who called on Williams to apologize for his remarks.

The news conference Williams spoke at is one of several that have been held since Flint **notified customers in January** that the city is in violation of the Safe Drinking Water Act because of the level of total trihalomethanes (TTHM) in water tested during the last 10 months.

Outspoken **residents have since protested** the price, color, odor and overall quality of the water.

City officials have said Flint **water is safe for the vast majority** of the people to drink but warned in January notices that TTHM can pose increased health risks for those with a compromised immune system, the elderly, pregnant women and infants.

Testing during the **last two months has shown the city is meeting** all health and safety standards for water, and a consultant is expected to deliver a report this week, detailing recommendations for improving the quality of drinking water here.

Flint's water problems, including **multiple boil water advisories** last summer, bloomed after the city began using the Flint River as its drinking water source in April.

Prior to that switch, the city had used Lake Huron water, pre-treated and purchased from the city of Detroit.

The Flint statement says "some people may still have issues with discoloration, or do not like the taste of the (higher) mineral content river water (but) these do not amount to a safety issue."

Williams responded to a request for comment with a text message to The Journal, saying "quote my **Twitter feed**."

In a Twitter message, the pastor wrote, "I (hear) #flint city officials upset at my comparisons yesterday. They should use their anger 2 make sure resident aren't drinking death water."

In another message, Williams wrote, "Isn't it extreme to knowingly sell residents contaminated water people in #flint forced to buy liver disease water? What is that? #Genocide."

In addition to his work as president of NAN-Michigan, Williams is the pastor of King Solomon Baptist Church of Detroit.

This week was not Williams' first appearance in the spotlight in Flint.

In 2013, he demanded Hurley Medical Center officials answer charges that they granted a father's request that only white nurses care for his infant child.

The hospital eventually agreed to pay nearly $200,000 in total to three black nurses who sued the hospital after claiming they were discriminated against when they weren't allowed to treat that white baby.

NAN describes itself as one of the leading civil rights organizations in the nation with chapters throughout the United States. The organization was founded in 1991 by Sharpton.

*Ron Fonger is a reporter for The Flint Journal. Contact him at rfonger1@mlive.com or 810-247-9963. Follow him on **Twitter**, **Facebook** or **Google+**.*

© 2015 MLive.com. All rights reserved.

Brad Wurfel
Communications Director
Michigan Department of Environmental Quality
517-284-6713
[redacted]cell

From: Wurfel, Sara (GOV)
Sent: Tuesday, March 24, 2015 10:44 AM
To: Hollins, Harvey (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV)
Cc: Agen, Jarrod (GOV); Murray, David (GOV)
Subject: FW: PRESS RELEASE: EM Statement on Flint's Water
Attachments: EM Statement on Water 3.24.2015.pdf; EM Letter to Treasury Regarding Water.PDF

FYI just in case.

What is latest on our involvement in this issue and coordination with Flint EM?

From: Jason Lorenz [mailto:jlorenz@cityofflint.com]
Sent: Tuesday, March 24, 2015 10:35 AM
Subject: PRESS RELEASE: EM Statement on Flint's Water

For Immediate Release

Emergency Manager Statement on Water: Spending Extra $12 Million on Detroit Water "Incomprehensible" When Flint Water Just as Safe

Flint, Michigan – March 24, 2015 – At the City Council meeting held on Monday, March 23, 2015, Flint City Council made a motion to "do all things necessary" to return to using water purchased from Detroit and discontinue use of the Flint River as a water source. The following statement from Emergency Manager Gerald Ambrose addresses that point:

"Flint water today is safe by all EPA and MDEQ standards and the City is working daily to improve its quality. Users also pay some of the highest rates in the state because of the decreased numbers of users and the age of the system.

"It is incomprehensible to me that 7 members of the Flint City Council would want to send more than $12 million a year to the system serving southeast Michigan, even if Flint rate payers could afford it. Water from Detroit is no safer than water from Flint.

"If $12 million annually were available for discretionary use, it would be far better spent reducing rates paid by Flint customers and/or modernizing the City's system."

-Gerald Ambrose,

Flint Emergency Manager

–END–

-Jason Lorenz
Public Information Officer
City of Flint
(810) 237-2039
jlorenz@cityofflint.com

Gerald Ambrose
Emergency Manager

Dayne Walling
Mayor

Jason Lorenz
Public Information Officer
(810) 237-2039
jlorenz@cityofflint.com

For Immediate Release

Emergency Manager Statement on Water: Spending Extra $12 Million on Detroit Water "Incomprehensible" When Flint Water Just as Safe

Flint, Michigan – March 24, 2015 – At the City Council meeting held on Monday, March 23, 2015, Flint City Council made a motion to "do all things necessary" to return to using water purchased from Detroit and discontinue use of the Flint River as a water source. The following statement from Emergency Manager Gerald Ambrose addresses that point:

"Flint water today is safe by all EPA and MDEQ standards and the City is working daily to improve its quality. Users also pay some of the highest rates in the state because of the decreased numbers of users and the age of the system.

"It is incomprehensible to me that 7 members of the Flint City Council would want to send more than $12 million a year to the system serving southeast Michigan, even if Flint rate payers could afford it. Water from Detroit is no safer than water from Flint.

"If $12 million annually were available for discretionary use, it would be far better spent reducing rates paid by Flint customers and/or modernizing the City's system."

-Gerald Ambrose,
Flint Emergency Manager

–END–

CITY OF FLINT

OFFICE OF THE EMERGENCY MANAGER

Gerald Ambrose
Emergency Manager

TO: Wayne Workman, Deputy Treasurer
Treasury Department
State of Michigan

FROM: Jerry Ambrose, Emergency Manager
City of Flint

DATE: March 3, 2015

As the Emergency Manager for the City of Flint, I am charged with restoring the City government to financial solvency, and working to assure that the City moves forward on a financially sustainable basis. The steps taken over the past three years have been difficult. Taxes and fees have been raised, services and workforce reduced, and ongoing costs, including legacy costs, have been constrained.

The current controversy surrounding the provision of water, and the path for resolution, has a potentially significant impact on the progress that is being made. I am satisfied that the water provided to Flint users today is within all MDEQ and EPA guidelines, as evidenced by the most recent water quality results conducted for MDEQ. We have a continuing commitment to maintain water safety and to improve water quality, and have dedicated resources to assure this commitment will be made.

The oft-repeated suggestion that the City should return to DWSD, even for a short period of time, would, in my judgment, have extremely negative financial consequences to the water system, and consequently to the rate payers. By the most conservative estimates, such a move would increase costs by at least $12 million annually, with that amount achieved only by eliminating virtually all budgeted improvements in the system. For a system with Unrestricted Assets of only $740,745, according to the June 30, 2014 audited financial statements, the only recourse within the City's control would be to increase revenues significantly. And in my judgment, that would come from raising rates for water by 30% or more . Further, changing the *source* of the city's water would not necessarily change any of the *aesthetics* of the water, including odor and discoloration, since those appear to be directly related to the aging pipes and other infrastructure that carry water from the treatment facility to our customers.

This direction of discussion also deviates from what, in my judgment, should be the focus: How can we not only operate and maintain a system to assure the delivery of safe and quality water dependably, but significantly reduce the cost of water and sewer to the users? At an average of $149 per month for water and sewer service for a residential user, the cost is extremely high in comparison to surrounding areas, as well as most areas across the state, and creates a significant financial burden for many users. In my judgment, we should all be concentrating on how to reduce rates by 50% or more. Unfortunately, there are no easy or evident answers, and continuation of the status will be an impediment to the sustainable recovery of the City of Flint. It is a conversation that I expect we will have with the recently created Water Quality Advisory Committee.

My reasoning for this conclusion is as follows:

One of the decisions made in the context of beginning to eliminate deficits and to restore financial stability to the City of Flint was to increase water and sewer rates significantly – the only choice available to financially stabilize a system that as of June 30, 2012, had a deficit of $8,758,091. Another was to leave DWDS for the KWA because it offered the opportunity to lower future rate increases. A third decision was to utilize the Flint River on an interim basis when DWSD unilaterally terminated the City's contract for water purchase. That decision was made because it also offered an immediate cost savings opportunity which translated into the ability to upgrade the Water Treatment Plant without having to seek financing. It was a reasonable decision because of our experience in using the river in a back-up capacity, including test runs on a quarterly basis for several decades.

Unfortunately, the switch to the river as a primary source was more challenging than anticipated, and the harsh winter of 2013-2014 resulted in much more damage to the aging water infrastructure than in previous years. The result was the issuance of required notices that water exceeded established guidelines for safety as it could affect certain vulnerable populations, and some users of the system experienced unpleasant odors and discoloration. Some users also appeared to have had some negative reactions to the new source of water. However, as soon as the test results were known, City staff took immediate actions to address the concerns. These actions are evidenced today by the fact that MDEQ has certified that our most recent testing shows water from all testing sites to be well within acceptable guidelines. Additionally, the City is continuing to taking the necessary actions to assure that the water supply remains safe and that water quality continues to improve.

As the City has moved to address the situation, the suggestion continues to be made that the City should re-engage with DWSD and purchase water at least until the KWA pipeline is supplying water. As evidenced by the most recent letter from DWSD, such a decision would immediately increase the City's cost by $846,700 per month, or $10,160,400 per year, just for the fixed cost portion of the price. The actual *purchase* of water would be an additional fee, and dependent upon

the quantity purchased. We estimate the actual water purchase cost to average more than $1 million per month, for a grand total of approximately $22 million per year. Finally, the DWSD offer is conditioned upon the City (or presumably the KWA) agreeing to negotiate a long term contract (30 years) for back-up.

The $22 million annual estimate of increased costs to purchase water from DWSD would be minimally offset by an approximate $3 million in reduced operating costs, and could be further offset by an additional $9 million, but only if all funding for capital improvements to the system are eliminated. To eliminate all funding dedicated to repairing, stabilizing, and improving the system would be totally irresponsible and would have long term negative consequences to the City and to future rate payers.

As you are aware we have recently brought in outside expert assistance to evaluate the steps we have taken to assure that the water is safe and to continue to improve water quality. We are expecting specific recommendations within the next few weeks, and are committed to implementing those recommendations in a timely manner. Many steps have already been taken. I am confident that implementing their recommendations will assure a continuing supply of safe water as well as improved quality, and at far less cost than re-engaging DWSD.

We have also created a 40-member Water Advisory Committee and a 13-member Technical Advisory Committee to assure two-way communication with the public and users of the system. Those committees will begin to meet this week, and we look forward to answering their questions and receiving their input.

It is unfortunate that problems and concerns with quality have arisen, and we are working every day to address the issues that caused them. Maintaining safe water and improving quality is a top priority as we work to make the City of Flint an attractive place to live, work, study, and play.

From: Muchmore, Dennis (GOV)
Sent: Monday, April 27, 2015 5:44 PM
To: Workman, Wayne (TREASURY)
Cc: Saxton, Thomas (Treasury); Clement, Elizabeth (GOV); Wurfel, Sara (GOV); Baird, Richard (GOV); Gelisse, Ashley (TREASURY); Storberg, Ann Marie (TREASURY); Koryzno, Edward (Treasury); Headen, Frederick (Treasury)
Subject: Re: scanned doc

Would someone please explain to me how cutting off water to 10,000 people does anything but bring the wrath of God down on all of us?

Sent from my iPhone

On Apr 27, 2015, at 10:29 AM, Workman, Wayne (TREASURY) <WorkmanW@michigan.gov> wrote:

> We received this letter Friday the 24th. Water shut-off threat continues.
>
> **From:** Dempkowski, Angela (Treasury)
> **Sent:** Monday, April 27, 2015 10:26 AM
> **To:** Workman, Wayne (TREASURY)
> **Subject:** scanned doc

<image001.jpg>

Angela Dempkowski | Senior Executive Management Assistant/Treasury
State of Michigan | 430 W. Allegan Street, 1st Floor | Lansing, MI 48922
[redacted] | (517) 373-0633 (fax)
dempkowskia@michigan.gov

Think Green! Don't print this e-mail unless you need to.

CONFIDENTIALITY NOTICE: This e-mail, and any attachments, is for the sole use of the intended recipient(s) and may contain information that is confidential and protected from disclosure under the law. Any unauthorized review, use, disclosure, or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail, and delete/destroy all copies of the original message and attachments.
Thank you

<DWSD-HP letter.pdf>

From: Wurfel, Brad (DEQ)
Sent: Monday, August 03, 2015 2:49 PM
To: Muchmore, Dennis (GOV); Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); Hollins, Harvey (GOV); Wurfel, Sara (GOV); Agen, Jarrod (GOV)
Cc: Clement, Elizabeth (GOV); Wyant, Dan (DEQ)
Subject: RE: dennis muchmore has sent you - Flint pastors tell residents to get their water tested - from Detroit News

That AP brief came from this Flint Journal story:
http://www.mlive.com/news/flint/index.ssf/2015/08/concerned_pastors_urge_flint_r.html#incart_river

Here's one that showcases the local clergy. I presume most of these folks will be with us tomorrow?
http://www.mlive.com/news/flint/index.ssf/2015/06/judge_says_flint_doesnt_have_t_1.html#incart_related_stories

Just had a pre-meet with Stephen Busch, our drinking water expert who oversees the staff regulating Flint. He's planning to bring some information on the history of the water / lead issue in Flint, as well as some data about the most recent statutorily required testing. He'll be able to discuss the state program (which implements the federal statute), what we've been doing by way of testing, what we're finding, and what residents should do if they have concerns.

Anything else anyone wants us to be prepared for?
b

-----Original Message-----
From: Muchmore, Dennis (GOV)
Sent: Monday, August 03, 2015 11:55 AM
To: Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); Hollins, Harvey (GOV); Wurfel, Sara (GOV); Wurfel, Brad (DEQ); Agen, Jarrod (GOV)
Cc: Clement, Elizabeth (GOV)
Subject: FW: dennis muchmore has sent you - Flint pastors tell residents to get their water tested - from Detroit News

Here's part of our on-going problem.

-----Original Message-----
From: do-not-reply@detroitnews.com [mailto:do-not-reply@detroitnews.com]
Sent: Monday, August 3, 2015 11:49 AM
To: Muchmore, Dennis (GOV)
Subject: dennis muchmore has sent you - Flint pastors tell residents to get their water tested - from Detroit News

Message from: muchmored@michigan.gov

Flint pastors tell residents to get their water tested

Some area pastors held a rally Sunday to urge residents to get their tap water tested

Check out this story on detroitnews.com: http://detne.ws/1SAH1K6

From: Snyder, Rick (GOV)
Sent: Saturday, September 05, 2015 2:00 PM
To: Hollins, Harvey (GOV)
Cc: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Clayton, Stacie (GOV)
Subject: Re: Flint Water Filters

Factually accurate update; but how did it go over with the residents?

Thanks
Rick

> On Sep 2, 2015, at 3:13 PM, Hollins, Harvey (GOV) <hollinsh@michigan.gov> wrote:
>
> As you know, [redacted] donated 1500 kitchen water filters for Flint residents as a way of providing added comfort amid concerns about Flint's water quality. [redacted] do not want any publicity or credit for the donation.
>
> The filters were delivered to the Concerned Pastors organization, who held an event yesterday to give away the filters. Residents were invited to come to a central location to pick up their filter. The Concerned Pastors targeted low income Flint residents.
>
> More than 1500 households showed up yesterday to pick up a filter; the Concerned Pastors exhausted the donated supply in 4 hours with 200 people still waiting to get a filter.
>
> Best,
> Harvey

From: Muchmore, Dennis (GOV)
Sent: Tuesday, September 15, 2015 9:52 AM
To: Khouri, Nick (TREASURY); Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); Lyon, Nick (DCH); Wyant, Dan (DEQ)
Cc: Wurfel, Brad (DEQ); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Roberts, John (DTMB)
Subject: Flint

Nice of Dayne Walling to work with us before he called yesterday to tell me he was going to announce to City Council last night that Flint needs and deserves $30M from the state for upgrades to their water system and a lead abatement program. Any thoughts on this?

From: Muchmore, Dennis (GOV)
Sent: Tuesday, September 15, 2015 9:57 AM
To: Khouri, Nick (TREASURY); Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); Wyant, Dan (DEQ); Roberts, John (DTMB)
Cc: Wurfel, Brad (DEQ); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV)
Subject: Follow up to previous email

Flint asks Snyder for $30M to upgrade water system

Associated Press 7:52 a.m. EDT September 15, 2015

Water from the Flint River rushes into the Flint water treatment plant in Flint.(Photo: File photo)

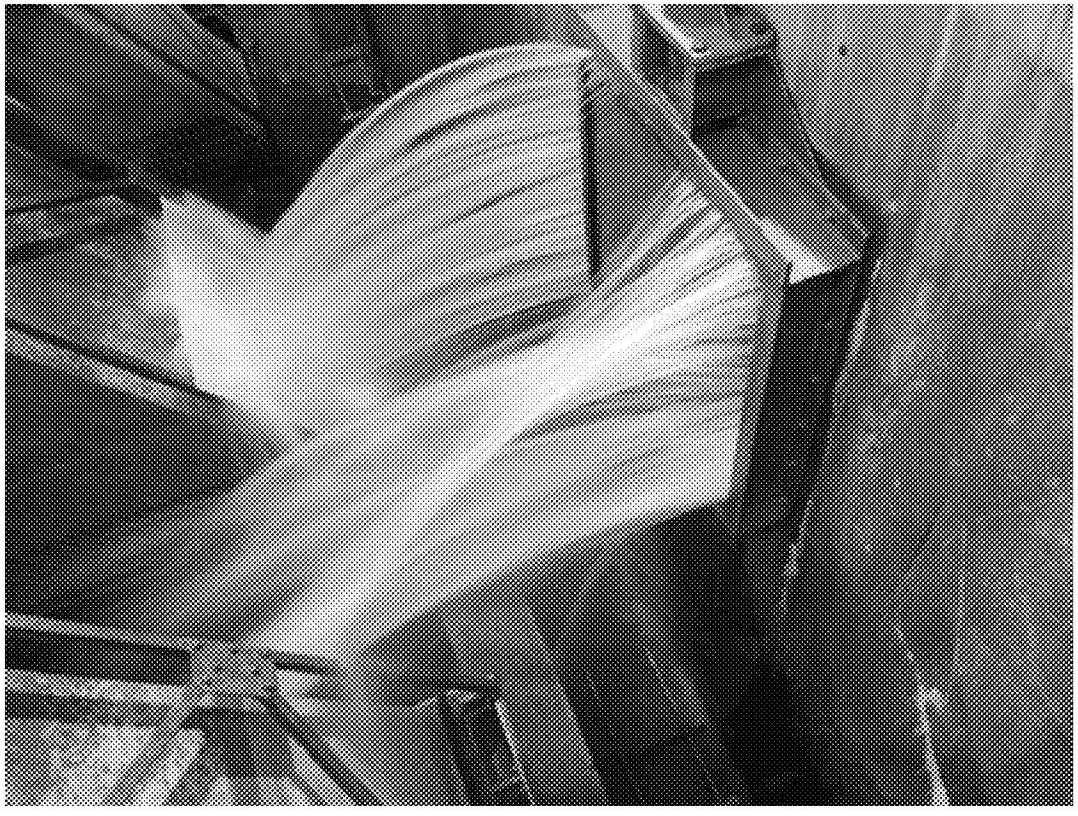
1 CONNECTTWEETLINKEDIN 2 COMMENTEMAILMORE

Flint — The mayor of Flint is asking Michigan Gov. Rick Snyder for $30 million to help upgrade the city's water system and replace lead service pipes.

The Flint Journal reports Mayor Dayne Walling announced his request while speaking Monday to the City Council. The request was made that day in a letter to Snyder.

The funds sought by Walling include $10 million to replace lead service lines and plumbing that can leach lead into drinking water. Virginia Tech researchers testing Flint's water have said residents shouldn't drink or cook with city water without flushing lines or using a filter.

The U.S. Environmental Protection Agency says Flint's water is within levels allowed for lead. The agency has said it would help the city in its efforts to reduce lead.



From: Khouri, Nick (TREASURY)
Sent: Tuesday, September 15, 2015 10:01 AM
To: Muchmore, Dennis (GOV)
Cc: Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); Lyon, Nick (DCH); Wyant, Dan (DEQ); Wurfel, Brad (DEQ); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Roberts, John (DTMB)
Subject: Re: Flint

Tom

Any state or federal subsidized financing available? Something similar in structure to combined sewer overflow?

It's not free money, but a better option

Sent from my iPhone

On Sep 15, 2015, at 9:52 AM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:

> Nice of Dayne Walling to work with us before he called yesterday to tell me he was going to announce to City Council last night that Flint needs and deserves $30M from the state for upgrades to their water system and a lead abatement program. Any thoughts on this?

From: Wurfel, Brad (DEQ)
Sent: Tuesday, September 15, 2015 10:27 AM
To: Muchmore, Dennis (GOV)
Cc: Khouri, Nick (TREASURY); Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); Lyon, Nick (DCH); Wyant, Dan (DEQ); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Roberts, John (DTMB)
Subject: Re: Flint

Caution that if Flint gets another allotment, we can expect every other large system in the state will be right on their heels. 15,000 homes in Flint is the estimate. That's a fraction of Detroit. ...
Perhaps this is an opportunity for Mott Foundation? Just a thought.
b

Sent from my iPhone

On Sep 15, 2015, at 9:52 AM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:

> Nice of Dayne Walling to work with us before he called yesterday to tell me he was going to announce to City Council last night that Flint needs and deserves $30M from the state for upgrades to their water system and a lead abatement program. Any thoughts on this?

From: Saxton, Thomas (Treasury)
Sent: Tuesday, September 15, 2015 10:48 AM
To: Muchmore, Dennis (GOV)
Cc: Wurfel, Brad (DEQ); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Roberts, John (DTMB); Wyant, Dan (DEQ); Lyon, Nick (DCH); Khouri, Nick (TREASURY); Workman, Wayne (TREASURY)
Subject: Flint
Attachments: Fwd: PRESS RELEASE: Coalition for Clean Water Lawsuit Dismissed by Circuit Court

Wayne & I have a call scheduled with the Mayor, City Atty, & the City Mgr @ 4:00 today. We are following up to see if in fact they inadvertently missed filing the appeal on the rate case. If so, in my mind that would be a huge, costly blunder (but that is why we are talking to them) which will greatly exacerbate the financial condition/solvency of the system.
And recall (not that long ago) I believe we gave them approx. $2mm in SRF loan relief and approx. $2mm in grant money[cgap?] to improve the system.
We are having staff look at possible other assistance from a financing or loan perspective. My sense is there will not be much there if any.

p.s. – the Flint coalition lawsuit was dismissed (see attached)

From: Muchmore, Dennis (GOV)
Sent: Tuesday, September 15, 2015 9:52 AM
To: Khouri, Nick (TREASURY) <KhouriN@michigan.gov>; Saxton, Thomas (Treasury) <SaxtonT@michigan.gov>; Workman, Wayne (TREASURY) <WorkmanW@michigan.gov>; Lyon, Nick (DCH) <LyonN2@michigan.gov>; Wyant, Dan (DEQ) <WyantD@michigan.gov>
Cc: Wurfel, Brad (DEQ) <WurfelB@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>
Subject: Flint

Nice of Dayne Walling to work with us before he called yesterday to tell me he was going to announce to City Council last night that Flint needs and deserves $30M from the state for upgrades to their water system and a lead abatement program. Any thoughts on this?

From: Workman, Wayne (TREASURY)
Sent: Tuesday, September 15, 2015 9:58 AM
Subject: Fwd: PRESS RELEASE: Coalition for Clean Water Lawsuit Dismissed by Circuit Court
Attachments: Coalition for Clean Water Lawsuit Dismissed 9.14.15.pdf; ATT00001.htm

Sent from my iPad

Begin forwarded message:

From: Jason Lorenz <jlorenz@cityofflint.com>
Date: September 15, 2015 at 9:37:25 AM EDT
To: undisclosed-recipients:;
Subject: PRESS RELEASE: Coalition for Clean Water Lawsuit Dismissed by Circuit Court

For Immediate Release

Lawsuit against City of Flint brought by Coalition for Clean Water Dismissed by Circuit Court

Flint, Michigan – September 15, 2015 – The lawsuit brought against the City of Flint by the Coalition for Clean Water has been dismissed by Circuit Court Judge Archie Hayman. In his September 14 ruling, Judge Hayman determined that the plaintiff did not state a valid cause of action against the City of Flint, the Mayor and the City Administrator. Judge Hayman also determined that he did not have jurisdiction to provide the relief sought by the plaintiff. All counts of the Coalition's amended complaint were therefore dismissed.

The City of Flint has maintained communication with both the Michigan Department of Environmental Quality and the United States Environmental Protection Agency to ensure all proper safety and quality standards have been followed. The MDEQ recently notified Flint that it is no longer in violation of the Safe Water Drinking Act due to total trihalomethanes (TTHM) following four consecutive quarters of testing showing levels below the federal action level. The City of Flint will continue to work to ensure safe, quality and affordable drinking water to its residents, businesses and visitors.

The City of Flint will continue to provide updates on its water progress through its website, cityofflint.com. Anyone with water issues is encouraged to call 810-766-7202 so that they can be addressed. Residents wishing to receive a free and independent in-home water test can call 810-787-6537 or email flintwater@cityofflint.com.

–END–

-Jason Lorenz
Public Information Officer
City of Flint
(810) 237-2039 (Office)
[redacted] (Cell)
jlorenz@cityofflint.com

Dayne Walling
Mayor

Natasha L. Henderson
City Administrator

Jason Lorenz
Public Information Officer
(810) 237-2039
jlorenz@cityofflint.com

For Immediate Release

Lawsuit against City of Flint brought by Coalition for Clean Water Dismissed by Circuit Court

Flint, Michigan – September 15, 2015 – The lawsuit brought against the City of Flint by the Coalition for Clean Water has been dismissed by Circuit Court Judge Archie Hayman. In his September 14 ruling, Judge Hayman determined that the plaintiff did not state a valid cause of action against the City of Flint, the Mayor and the City Administrator. Judge Hayman also determined that he did not have jurisdiction to provide the relief sought by the plaintiff. All counts of the Coalition's amended complaint were therefore dismissed.

The City of Flint has maintained communication with both the Michigan Department of Environmental Quality and the United States Environmental Protection Agency to ensure all proper safety and quality standards have been followed. The MDEQ recently notified Flint that it is no longer in violation of the Safe Water Drinking Act due to total trihalomethanes (TTHM) following four consecutive quarters of testing showing levels below the federal action level. The City of Flint will continue to work to ensure safe, quality and affordable drinking water to its residents, businesses and visitors.

The City of Flint will continue to provide updates on its water progress through its website, cityofflint.com. Anyone with water issues is encouraged to call 810-766-7202 so that they can be addressed. Residents wishing to receive a free and independent in-home water test can call 810-787-6537 or email flintwater@cityofflint.com.

–END–

From: Hollins, Harvey (GOV)
Sent: Tuesday, September 15, 2015 11:00 AM
To: Wurfel, Brad (DEQ)
Cc: Muchmore, Dennis (GOV); Khouri, Nick (TREASURY); Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); Lyon, Nick (DCH); Wyant, Dan (DEQ); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Roberts, John (DTMB)
Subject: Re: Flint

On the one hand, this is an infrastructure challenge that is not unique. A number of cities in Michigan, maybe not as pronounced, are dealing with water and sewage infrastructure challenges. Flint's problem is that it has 500 miles of iron piping that's over 60 years old, coupled with the fact that the city's population is half the size than it was at it's peak.

On the other hand, like roads, we need a broader state wide solution. Given the roads legislation, perhaps the solution is a fund that a city of a certain size or county can draw down with a required match that can be used to invest in roads, water or sewer.

Of course, Flint's residents are tapped out in terms of rates, taxes and fees, but in the end, they are still a municipality. Any solution the state provides needs to be available to other cities, and should function to assist the city, not total pay for their problem.

On Sep 15, 2015, at 10:26 AM, Wurfel, Brad (DEQ) <WurfelB@michigan.gov> wrote:

> Caution that if Flint gets another allotment, we can expect every other large system in the state will be right on their heels. 15,000 homes in Flint is the estimate. That's a fraction of Detroit. ...
> Perhaps this is an opportunity for Mott Foundation? Just a thought.
> b
>
> Sent from my iPhone
>
> On Sep 15, 2015, at 9:52 AM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:
>
> > Nice of Dayne Walling to work with us before he called yesterday to tell me he was going to announce to City Council last night that Flint needs and deserves $30M from the state for upgrades to their water system and a lead abatement program. Any thoughts on this?

From: Wurfel, Brad (DEQ)
Sent: Tuesday, September 15, 2015 11:05 AM
To: Hollins, Harvey (GOV)
Cc: Muchmore, Dennis (GOV); Khouri, Nick (TREASURY); Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); Lyon, Nick (DCH); Wyant, Dan (DEQ); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Roberts, John (DTMB)
Subject: Re: Flint

Amen.

Sent from my iPhone

On Sep 15, 2015, at 11:00 AM, Hollins, Harvey (GOV) <hollinsh@michigan.gov> wrote:

> On the one hand, this is an infrastructure challenge that is not unique. A number of cities in Michigan, maybe not as pronounced, are dealing with water and sewage infrastructure challenges. Flint's problem is that it has 500 miles of iron piping that's over 60 years old, coupled with the fact that the city's population is half the size than it was at it's peak.
>
> On the other hand, like roads, we need a broader state wide solution. Given the roads legislation, perhaps the solution is a fund that a city of a certain size or county can draw down with a required match that can be used to invest in roads, water or sewer.
>
> Of course, Flint's residents are tapped out in terms of rates, taxes and fees, but in the end, they are still a municipality. Any solution the state provides needs to be available to other cities, and should function to assist the city, not total pay for their problem.
>
> On Sep 15, 2015, at 10:26 AM, Wurfel, Brad (DEQ) <Wurfel8@michigan.gov> wrote:
>
> > Caution that if Flint gets another allotment, we can expect every other large system in the state will be right on their heels. 15,000 homes in Flint is the estimate. That's a fraction of Detroit. ...
> > Perhaps this is an opportunity for Mott Foundation? Just a thought.
> > b
> >
> > Sent from my iPhone
> >
> > On Sep 15, 2015, at 9:52 AM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:
> >
> > > Nice of Dayne Walling to work with us before he called yesterday to tell me he was going to announce to City Council last night that Flint needs

and deserves $30M from the state for upgrades to their water system and a lead abatement program. Any thoughts on this?

From: Muchmore, Dennis (GOV)
Sent: Wednesday, September 16, 2015 10:33 AM
To: Khouri, Nick (TREASURY)
Cc: Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); Lyon, Nick (DCH); Wyant, Dan (DEQ); Wurfel, Brad (DEQ); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Roberts, John (DTMB)
Subject: RE: Flint

Any additional information on this?

From: Khouri, Nick (TREASURY)
Sent: Tuesday, September 15, 2015 10:01 AM
To: Muchmore, Dennis (GOV) <muchmored@michigan.gov>
Cc: Saxton, Thomas (Treasury) <SaxtonT@michigan.gov>; Workman, Wayne (TREASURY) <WorkmanW@michigan.gov>; Lyon, Nick (DCH) <LyonN2@michigan.gov>; Wyant, Dan (DEQ) <WyantD@michigan.gov>; Wurfel, Brad (DEQ) <WurfelB@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>
Subject: Re: Flint

Tom

Any state or federal subsidized financing available? Something similar in structure to combined sewer overflow?

It's not free money, but a better option

Sent from my iPhone

On Sep 15, 2015, at 9:52 AM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:

> Nice of Dayne Walling to work with us before he called yesterday to tell me he was going to announce to City Council last night that Flint needs and deserves $30M from the state for upgrades to their water system and a lead abatement program. Any thoughts on this?

From: Workman, Wayne (TREASURY)
Sent: Wednesday, September 16, 2015 10:40 AM
To: Muchmore, Dennis (GOV); Khouri, Nick (TREASURY)
Cc: Saxton, Thomas (Treasury); Lyon, Nick (DCH); Wyant, Dan (DEQ); Wurfel, Brad (DEQ); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Roberts, John (DTMB)
Subject: RE: Flint

We will have an update later today from our call with the City yesterday.

Wayne L. Workman
Deputy State Treasurer
Michigan Department of Treasury

From: Muchmore, Dennis (GOV)
Sent: Wednesday, September 16, 2015 10:33 AM
To: Khouri, Nick (TREASURY) <KhouriN@michigan.gov>
Cc: Saxton, Thomas (Treasury) <SaxtonT@michigan.gov>; Workman, Wayne (TREASURY) <WorkmanW@michigan.gov>; Lyon, Nick (DCH) <LyonN2@michigan.gov>; Wyant, Dan (DEQ) <WyantD@michigan.gov>; Wurfel, Brad (DEQ) <WurfelB@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>
Subject: RE: Flint

Any additional information on this?

From: Khouri, Nick (TREASURY)
Sent: Tuesday, September 15, 2015 10:01 AM
To: Muchmore, Dennis (GOV) <muchmored@michigan.gov>
Cc: Saxton, Thomas (Treasury) <SaxtonT@michigan.gov>; Workman, Wayne (TREASURY) <WorkmanW@michigan.gov>; Lyon, Nick (DCH) <LyonN2@michigan.gov>; Wyant, Dan (DEQ) <WyantD@michigan.gov>; Wurfel, Brad (DEQ) <WurfelB@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>
Subject: Re: Flint

Tom

Any state or federal subsidized financing available? Something similar in structure to combined sewer overflow?

It's not free money, but a better option

Sent from my iPhone

On Sep 15, 2015, at 9:52 AM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:

> Nice of Dayne Walling to work with us before he called yesterday to tell me he was going to announce to City Council last night that Flint needs and deserves $30M from the state for upgrades to their water system and a lead abatement program. Any thoughts on this?

From: Murray, David (GOV)
Sent: Monday, September 28, 2015 5:51 PM
To: Agen, Jarrod (GOV)
Subject: Fwd: Flint Water Issue - Rep. Kildee Letter Received By Federal Agencies
Attachments: image003.png; ATT00001.htm; 09-22-15 Kildee Requesting Temporary Assistance for Lead in Flint Water.pdf; ATT00002.htm; Flint Pediatric Lead Concerns REVISED.PDF; ATT00003.htm

I don't know if Kildee mentioned this to the governor.

Sent from my iPhone

Begin forwarded message:

> **From:** "Kelenske, Chris (MSP)" <KelenskeC@michigan.gov>
> **Date:** September 28, 2015 at 5:48:41 PM EDT
> **To:** "Etue, Kriste (MSP)" <EtueK@michigan.gov>, "Gorski, Gary (MSP)" <GorskiG@michigan.gov>, "Smith, Paul (GOV)" <SmithP29@michigan.gov>
> **Cc:** "Katarsky, Anthony (MSP)" <KatarskyA@michigan.gov>, "Leix, Ron (MSP)" <LeixR@michigan.gov>, "Banner, Shanon (MSP)" <BannerS@michigan.gov>, "Wurfel, Sara (GOV)" <Wurfels@michigan.gov>, "Murray, David (GOV)" <MurrayD1@michigan.gov>
> **Subject: Flint Water Issue - Rep. Kildee Letter Received By Federal Agencies**
>
> Attached are two documents for your information: 1) A letter from US Representative Kildee to Craig Fugate of FEMA, HHS, EPA, and CDC and 2) a PowerPoint on Flint water concerns. Essentially, Representative Kildee is requesting FEMA take action to resolve potable water quality issues associated with the Flint water system.
>
> This is the first we heard of the letter and I actually found out from the FEMA Region V Director when he called me about an hour ago. He and I discussed a few things on this and he will respond advising they need to work through the local EM system in MI (engaging the local EM and then EMHSD). They also are working through the local health department as I confirmed with Dr. Scott from DHHS. If Flint needs water or want water the first step is to handle it locally (at least on the EM side and then push up any gaps they cannot fill to us). We are not aware of any work the local EM has done in this regard. I will be with the FEMA Region V Director as well as the FEMA Administrator, Craig Fugate, this week if they have questions.
>
> I have advised Dr. Jackie Scott from DHHS and will be sending her the letter and ppt.
>
> Chris
>
> Capt. Chris A. Kelenske
> Deputy State Director/Commander
> Emergency Management and Homeland Security Division
> Michigan State Police
> 4000 Collins Road
> Lansing, MI 48910

(517) 333-5042

“A PROUD tradition of SERVICE through EXCELLENCE, INTEGRITY, and COURTESY.”

JOIN THE MSP

DANIEL T. KILDEE
5TH DISTRICT, MICHIGAN

COMMITTEE ON
FINANCIAL SERVICES

SUBCOMMITTEE ON
HOUSING AND INSURANCE

SUBCOMMITTEE ON
MONETARY POLICY AND TRADE

SENIOR WHIP

DEMOCRATIC POLICY AND
COMMUNICATIONS COMMITTEE

Congress of the United States
House of Representatives
Washington, DC 20515

WASHINGTON OFFICE

227 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-3611
(202) 225-6393 (FAX)

DISTRICT OFFICE

111 EAST COURT STREET #3B
FLINT, MI 48502
(810) 238-8627
(810) 238-8658 (FAX)

WWW.DANKILDEE.HOUSE.GOV
/REPDANKILDEE
@REPDANKILDEE

September 22, 2015

Secretary Sylvia Matthews Burwell
U.S. Department of Health & Human Services
HHS Office of the Secretary
200 Independence Avenue, S.W.
Washington, DC 20201

Administrator William Craig Fugate
Federal Emergency Management Agency
500 C Street, S.W.
Washington, DC 20472

Administrator Gina McCarthy
Environmental Protection Agency
Office of the Administrator 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Director Tom Frieden
Centers for Disease Control and Prevention
1600 Clifton Road
Atlanta, GA 30329

Secretary Burwell, Administrator McCarthy, Administrator Fugate and Director Frieden:

Recent developments regarding the level of lead in the water in one of the communities I represent, Flint, Mich., have raised significant concerns about the safety of its drinking water. For this reason, I am requesting immediate resources to provide safe drinking water to the residents of Flint until additional testing can be completed that confirms the water is safe, particularly for young children.

Although the city of Flint and the Michigan Department of Environmental Quality have conducted tests and taken the position that the lead level in the water is safe and below the action level, there are significant questions about the efficacy of their testing. In fact, Dr. Marc Edwards of Virginia Tech University, an established drinking water expert, conducted his own tests as part of a study that determined the water in Flint was above the lead action level.

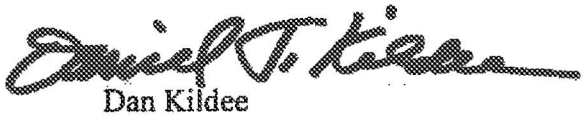
Additionally, yesterday the Greater Flint Health Coalition, a group of health professionals in the community, released a report showing elevated blood lead levels in residents in Flint, particularly in young children. In response, the Coalition has requested that the Genesee County Health Department release a health advisory indicating that the water in Flint is unsafe to drink.

Thus, I am requesting resources from your agency to provide clean drinking water to the residents of Flint until additional testing can determine when the water will be safe to drink and a long-term solution can be implemented.

This is a serious health issue, particularly for young children, and until the water is demonstrated to be safe, immediate action must be taken to ensure Flint's residents have potable drinking water.

I look forward to working with you and thank you for your immediate attention.

Sincerely,

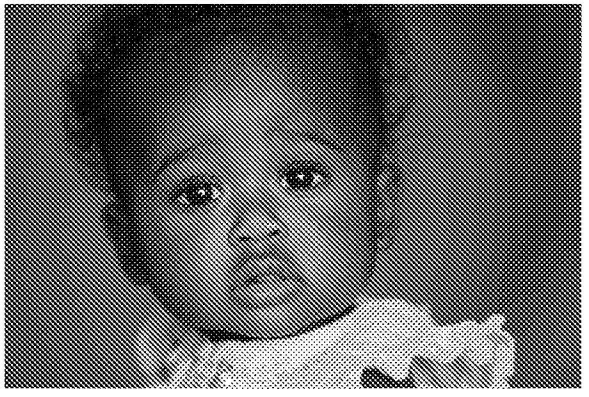


Dan Kildee
MEMBER OF CONGRESS

Pediatric Lead Exposure In Flint, Michigan:
A Failure of Primary Prevention

Mona Hanna-Attisha MD MPH FAAP
Hurley Children's Hospital
Michigan State University Department of Pediatrics and Human Development

Introducing Makayla*



- 12 month old girl (DOB 8/15/2014) presented last week for her 1 year old check up. No concerns.
- Lives with single mom and 2 older siblings in west side (48504). Formula from WIC; powder mixed with warm tap water.
- Physical exam and development are normal. Makayla receives her 1 year old vaccines and routine lead and hemoglobin screening.
- *A couple days later, lead level comes back as 6 ug/dL.*

*Hypothetical scenario

Blood lead level of 6 ug/dL….

- Blood lead levels (BLL) above 5 ug/dL are considered elevated blood lead levels (EBL)
- Just a few years ago (2012), 10 ug/dL was cutoff
- Increasing evidence shows NO safe blood lead level
- Disproportionately impacts low income, minority children
- Primary prevention is most important

Primary Prevention

- "Because no measurable level of blood lead is known to be without deleterious effects, and because once engendered, the effects appear to be irreversible in the absence of any other interventions, public health, environmental and housing policies should encourage PREVENTION of all exposure to lead."

"Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention." 2012 CDC Advisory Committee on Childhood Lead Poisoning Prevention.

What will happen to Makayla?

- Vast evidence supports increased likelihood of:
  - Decrease in IQ
    - An increase in BLL from 1 to 4 ug/dL, drops mean IQ -3.7 points
  - Small change in mean IQ, shifts entire population IQ distribution
    - Reduces high achievers IQs (>130) and increases kids with low IQs (<70)
    - Implications for special education services, employment, incarceration, life achievement, etc

Lanphear BP et al., Low-level environmental lead exposure and children's intellectual function: an international pooled analysis. Environ Health Perspect, 2005. 113:894-9.
Fewtrell LJ, Pruss-Ustun A, Landrigan P, and Ayuso-Mateos JL, Estimating the global burden of disease of mild mental retardation and cardiovascular diseases from environmental lead exposure. Environmental Research, 2004. 94:120-33.

Behavioral Burden

- Increased likelihood of :
  - ADHD behaviors
  - Delinquent behaviors and arrests
  - Total arrests and increased rates of arrests involving violent offenses
  - Other health effects: hematologic, cardiovascular, immunologic, endocrine, etc

Wright, JP, KN Dietrich, MD Ris, et al. 2008. Association of prenatal and childhood blood lead concentrations with criminal arrests in early adulthood. *PLoS Med* 5(5): e101

Chen, A, B Cai, KN Dietrich, et al. 2007. Lead exposure, IQ, and behavior in urban 5-7 year-olds: Does lead affect behavior only by lowering IQ? *Pediatrics* 119(3): e650-e658.

Needleman, HL, C McFarland, RB Ness, et al. 2002. Bone lead levels in adjudicated delinquents: A case control study. *Neurotoxicology and Teratology* 24(6):711-717.

The Cost

- "For childhood lead poisoning, $5.9 million in medical care costs, as well as an additional $50.9 billion (sensitivity analysis: $44.8–$60.6 billion) in lost economic productivity resulting from reduced cognitive potential from preventable childhood lead exposure."

- "The present value of Michigan's economic losses attributable to lead exposure in the 2009 cohort of 5 year-olds ranges from $3.19 (using U.S. blood lead levels) to $4.85 billion (using Michigan blood lead levels) per year in loss of future lifetime earnings."

Leonardo Trasande and Yinghua Liu. Reducing The Staggering Costs Of Environmental Disease In Children, Estimated At $76.6 Billion In 2008. *Health Affairs*, 30, no.5 (2011):863-870

The Price of Pollution: Cost Estimates of Environment-Related Childhood Diseases in Michigan. 2010 Report by Michigan Network of Children's Environmental Health

Lead in Water

- Increasing as source of lead, because of success in controlling other sources.
- Increasing due to aging water infrastructures, change in water sources, disinfectant uses, etc
- Disproportionally impacts developmentally-vulnerable formula-fed infants and pregnant mothers
  - For about 25% of infants drinking formula made from tap water at 10 ppb, blood lead would rise above the CDC level of concern of 5 micrograms/deciLiter (or ug/dL).
  - Increase in fetal death and reduced birth weights

Triantafyllidou, S., Gallagher. D. and Edwards, M. Assessing risk with increasingly stringent public health goals: the case of water lead and blood lead in children. Journal of Water and Health. doi: 10.2166/wh.2013.067 58-68 (2014).
Edwards, M. Fetal Death and Reduced Birth Rates Associated with Exposure to Lead-Contaminated Drinking Water. Env. Sci. and Tech. 2013 DOI: 10.1021/es4034952

Preliminary Results

(results removed)

Conclusions from BLL analysis

- % of children with EBL in Flint has increased
  - Most striking increase in zip codes with highest water lead levels
- Results underestimate risk: infants not screened for lead and water usage unknown.
  - *Accurate exposure largely unknown since national childhood lead screening focuses on household lead exposure (paint, soil, dust) at later ages (1 and 2 yrs)*

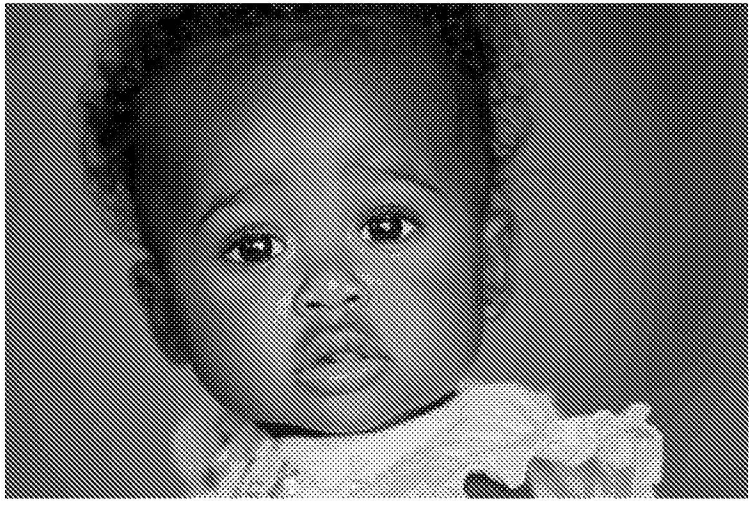
- Results are consistent and concerning. Primary prevention has failed.

Next Steps

- Immediately limit further exposure
  - Encourage breast feeding
  - No tap water for high risk groups: infants on formula & pregnant mothers
  - Declare health advisory: allows WIC to administer water or ready-to-feed formula and other resources (Salvation Army & United Way water supplies)
  - Distribution of lead clearing NSF-approved filters
  - Public education regarding precautions (flushing, etc)
  - Re-connect to Lake Huron water source ASAP

And Makayla…

- Asymptomatic now
- But what will her future hold and an entire generation of Flint children?



From: Wurfel, Sara (GOV)
Sent: Thursday, October 01, 2015 12:01 PM
To: Agen, Jarrod (GOV)
Cc: Clement, Elizabeth (GOV)
Subject: RE: Flint

I thought the answer was yes, but now not so sure. We should know by late afternoon.

-----Original Message-----
From: Agen, Jarrod (GOV)
Sent: Thursday, October 01, 2015 10:47 AM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>
Cc: Clement, Elizabeth (GOV) <clemente@michigan.gov>
Subject: Re: Flint

Question from the G:
Can we definitively say that no WATER tests have ever shown levels that are above the Federal/EPA standards?

I think Dan alluded to this in the meeting when he said we were testing at 11 and the federal mark is 15 or above. But Gov wants to know if we can make the claim above.

> On Oct 1, 2015, at 9:06 AM, Wurfel, Sara (GOV) <Wurfels@michigan.gov> wrote:
>
> Not yet, but hopefully will be. Think got Dennis and Harvey on same page about tying in other HHS/Hurley news to part of action plan on Friday's announcement. DEQ and DHHS teams trying to finalize policy and messaging drafts now for review. 1:30 p.m. mtg to walk through details and see where at.
>
> Also - heads up and FYI - we just had a major protocol and near security breach with WJRT TV 12 getting up to 2nd floor without our knowledge or escort. Apparently DK Security and other EO team though they were part of pastors meeting happening. (Apparently invited by the pastors). That's caused some excitement have been dealing with. They're on our comms floor now - doing a stand up with them and letting them catch pastors after meeting outside.
>
> -----Original Message-----
> From: Agen, Jarrod (GOV)
> Sent: Thursday, October 01, 2015 9:46 AM
> To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>
> Subject: Flint
>
> Are we good on plan to discuss lead levels tomorrow?
> If you need me to chime in, let me know....
>
> If you have any messaging that you want G to review on the plane, just shoot it over.
>
>

From: Muchmore, Dennis (GOV)
Sent: Friday, October 02, 2015 9:43 AM
To: Agen, Jarrod (GOV)
Cc: Clement, Elizabeth (GOV)
Subject: Re: Flint

Yes

Sent from my iPhone

On Oct 1, 2015, at 7:02 PM, Agen, Jarrod (GOV) <AgenJ@michigan.gov> wrote:

> I don't want to just forward this email to Wyant, but Governor just ask to make sure that he had all this info.
>
> Does Dan have all this?
>
> Begin forwarded message:
>
> **From:** "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>
> **Date:** October 1, 2015 at 1:30:40 PM PDT
> **To:** "Snyder, Rick (GOV)" <[redacted]
> **Cc:** "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Posthumus, Dick (GOV)" <Posthumusd@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Hollins, Harvey (GOV)" <hollinsh@michigan.gov>
> **Subject: Flint**
>
> I talked with Dayne Walling at length today a few minutes ago, and Harvey and I had separate meetings with one of the Flint minister groups and then Rep. Neely. Our conversations were cordial for the most with the normal concerns being expressed. I told Rep. Neely that I felt he hadn't gotten enough respect and insight into our thoughts on this and we expanded our backgrounder for him and he was very appreciative. He actually cancelled a Black Caucus meeting called for today on this due to Harvey and our meeting. I have Dan and Nick calling him just to update.
>
> More importantly, we have the proposal back from DWSD for a reconnect:
>
> 1. Short term reconnect is ok until KWA starts operating;
> 2. No reconnect fee and immediate reconnect;
> 3. Expenses incurred at actual cost although no estimate at this time
> 4. A fixed monthly rate of $662,100 + a commodity rate of $8.93mcf for current 15-16 FY;
> 5. Rate is over and above water sales to Genesee County Drain Commission;
> 6. A water wholesale adjustment;
> 7. Only extends to Flint;
> 8. Rates for 16-17 FY would be the same as other customers.

Mayor Duggan is more than willing to lend his support.

I'm asking Saxton for a ballpark calculation. We would have to find them the money for this reconnect, but Dayne is more than open (as is Ananich to a lesser degree) to finding some revolving fund that they would repay perhaps on an extended basis or maybe using some guarantee to reduce the borrowing costs.

From: Wisniewski, Wendy (GOV)
Sent: Monday, October 05, 2015 2:55 PM
To: Agen, Jarrod (GOV); Clement, Elizabeth (GOV)
Subject: Document re Flint
Attachments: 20151005142352484.pdf

Dennis asked me to send you this document.

Received From Flint Coalition

Copy to JA/JC

COMMENTARY: MDEQ Mistakes and Deception Created the Flint Water Crisis

September 30, 2015 Articles

As results of our collaborative research with Flint residents exposed widespread problems with elevated levels of lead in Flint's water, the Michigan Department of Environmental Quality (MDEQ) repeatedly attempted to discredit our findings and downplay the public health threat. For example, MDEQ's Communications Director Brad Wurfel wrote to The Flint Journal's Ronald Fonger:

"...the state DEQ is just as perplexed by Edwards' results as he seems to be by the City's test results. When I said we were unsure how the Virginia Tech team got its results, that's not the same as being surprised that they got them. ...this group specializes in looking for high lead problems. They pull that rabbit out of that hat everywhere they go. Nobody should be surprised when the rabbit comes out of the hat, even if they can't figure out how it is done.....while the state appreciates academic participation in this discussion, offering broad, dire public health advice based on some quick testing could be seen as fanning political flames irresponsibly. Residents of Flint concerned about the health of their community don't need more of that."

Now that Dr. Mona Hanna-Attisha and Hurley Medical Center researchers have revealed that the rising levels of lead in Flint water have been associated with increased blood lead of Flint's

children, our early health advice has been vindicated by most accounts. But MDEQ still dismisses the water controversy as "near-hysteria,"and characterizes the Hurley study conclusions as ***"unfortunate"*** if not quite***"irresponsible."***

Given MDEQ's insistence that there is absolutely nothing wrong with Flint water, we have created a timeline that illustrates how MDEQ's mistakes and deception created the Flint Water Crisis in the first place. Our analysis relies on e-mails and documents obtained through Freedom of Information Act (FOIA) requests by the American Civil Liberties Union-Michigan (ACLU of Michigan) and FlintWaterStudy.org.

All FOIA documents are provided at the end of this article for review.

Phase 1. MDEQ Fails to Require Corrosion Control for Flint River Water (April 2014)

Effective July 1998, the federal Lead and Copper Rule (LCR) has required that all large public water systems maintain a program to control levels of lead in drinking water from corrosion. Moreover, the law also requires the City of Flint to have a state approved plan, with enforceable regulatory limits for "Water Quality Parameters" including pH, alkalinity and/or corrosion inhibitor dose measured in the water distribution system.

MDEQ never required Flint to have a corrosion control program, nor did it set water quality parameters for the new Flint River source water. While MDEQ asserts that they are acting proactively to get a corrosion control program in Flint, there is

no provision in the LCR that allows for corrosion control to ever be interrupted.

As a direct result of this mistake, Flint residents have been completely unprotected from elevated lead in water from the moment the switch to Flint River water was made. This has created a conflict of interest for MDEQ ever since. Specifically, MDEQ's failure to require a corrosion control program is what created the Flint water crisis in the first place–they now have a vested interest in covering up the problem.

Phase 2. MDEQ misinforms the USEPA about Flint's Corrosion Control (February-March 2015)

Even if we assume MDEQ was confused about its obligations under the LCR, when problems with high lead started to crop up in February 2015, they should have quickly acted to correct the mistake. Samples with high lead were reported at the University of Michigan-Flint Campus, and on February 26, 2015 Mike Glasgow (City of Flint) did excellent detective work discovering high lead (over 100 ppb) in water samples from Flint resident Lee-Anne Walters' home.

Ms. Walters immediately forwarded her results to representatives of USEPA Region 5, who in turn immediately forwarded the results to Stephen Busch and Mike Prysby (MDEQ) with the subject line "**HIGH LEAD: FLINT Water testing Results**" The EPA e-mail correctly informed MDEQ that Ms. Walters' high lead was likely due to "***... the different chemistry water...leaching out contaminants from the insides of...the pipes.***"But MDEQ denied to EPA that that Flint had a lead in water problem.

At that point, EPA Region 5 lead-in-water expert Miguel Del Toral asked MDEQ a question through another EPA employee:

"Miguel was wondering if Flint is feeding Phosphates. Flint must have Optimal Corrosion Control Treatment- is it Phosphates?"

On February 27th, 2015, MDEQ's Stephen Busch unequivocally and falsely responded to EPA that:

"The City of Flint...Has an Optimized Corrosion Control Program <and> Conducts quarterly Water Quality Parameter monitoring at 25 sites and has not had any unusual results."

Reassured by MDEQ's false statement, Del Toral ended USEPA's February conversation with MDEQ by stating:

"If I remember correctly, Detroit is feeding PO4 for the LCR, but since Flint is no longer part of that interconnection, I was wondering what their <Optimal Corrosion Control> was. They are required to have <Optimal Corrosion Control> in place which is why I was asking what they were using."

On March 18, 2015, Lee-Anne Walters' home was retested after flushing her system thoroughly. This time the test result came back even worse with 397 ppb lead– almost 40 times higher than the World Health Organization 10 ppb safety threshold. EPA Region 5 forwarded the results to MDEQ, with a query ***"Any thoughts on how to respond to her? I'm running out of ideas."***

MDEQ's response, delivered in a voicemail to Del Toral on March 19, 2015, stated that***MDEQ had investigated and found Ms. Walters' high lead was due to lead sources in her plumbing***. On March 27, 2015, Walters' son, who had been having health problems, was tested for lead in his blood. The blood lead results came back high– well over the 5 ug/dL CDC threshold of concern.

Phase 3. Walters and Del Toral Investigate the Veracity of MDEQ Statements (April to June 2015)

With good reason, Lee-Anne Walters did not accept the MDEQ's explanation to Del Toral for the high lead in her water. The internal plumbing had been stolen from the house before it was purchased, and they had installed new (lead free) plastic plumbing before moving in.

Walters also checked up on the MDEQ statement that Flint had "an Optimized Corrosion Control Program." She called the City of Flint, and city officials correctly informed her that there was no program at all.

Walters then passed this alarming information along to EPA's Del Toral, who on April 23rd e-mailed MDEQ, and again asked what corrosion control program Flint was using. It was only then that MDEQ finally acknowledged that there was NO program. Concerned due to the very high occurrence of lead service lines (LSLs) in Flint, on April 27th Del Toral wrote an EPA Region 5 internal e-mail stating:

"Flint has not been operating any corrosion control treatment, which is very concerning given the likelihood of LSLs in the City."

That night Del Toral also stopped at Walters' house on a trip north, and personally inspected her plumbing first hand. He confirmed it was plastic and lead-free. Del Toral also dropped off sample bottles at the Walters' home, and told her that if she wanted an analysis to contact Professor Marc Edwards (the author of this article and Principal Investigator of FlintWaterStudy.org) at Virginia Tech.

The next morning Edwards talked Walters through an intensive 30 bottle sampling protocol. When the bottles were returned to Virginia Tech and analyzed, Edwards and his senior research scientist Dr. Jeff Parks were stunned by the results. The average lead in was 2,429 ppb lead, the high was 13,200 ppb, and even after 25 minutes flushing the water never dropped below 200 ppb. After Walters told Del Toral about the high lead results, he drove back to Flint, just in time to observe the City replacing the service line to Walters' home. He personally collected a sample of the pipe and verified it to be pure lead.

In a follow-up memo dated June 24, 2015, which was sent to both Walters and Edwards, Del Toral outlined numerous concerns about the situation regarding the serious lead corrosion problem in Flint. *He included a clear recommendation that the USEPA investigate whether the City of Flint was in compliance with federal laws for lead corrosion control.*

Phase 4. MDEQ "Handles" the LCR Report, ACLU-Michigan, Virginia Tech and Miguel Del Toral (July to August 2015)

> **"Revising" the Original LCR Report.** In spite of all the problems documented with lead in Flint water from February to June 2015, Flint and MDEQ took a lackadaisical approach to the federally required LCR sampling program. Specifically, just 5 days before the June 30th deadline to collect the 100 samples that MDEQ required, the City had only collected 39 samples.

Adam Rosenthal (MDEQ) e-mailed Mike Glasgow at the City of Flint:

"We hope you have 61 more lead/copper samples collected and sent to the lab by 6/30/15, and that they will be below the AL for lead. As of now with 39 results, Flint's 90th percentile is over the AL for lead."

In the next five days the City collected 30 samples, all of which were below the action level, and did not reach the 100 sample target. If all 71 submitted samples had been considered valid, the City would have exceeded the 15 ppb action level. *Federal law would then require that Flint residents be provided information about how to protect themselves and their children from lead in water. MDEQ's failure to install corrosion control would have been flagged as an obvious mistake. But none of that happened.*

Instead, the MDEQ "revised" the City's original LCR report, invalidating two high lead results, so that the 90%'ile was under the 15 ppb action level. The validity of samples showing low lead in the City's sampling was never questioned. This is a problem,

because the City has now admitted that they do not know which homes had lead pipe, even though it is stated in writing in the report that all sampled homes had lead pipe. By law, at least 50 percent of the homes sampled must be verified to have lead pipe, and the remainder of homes sampled must have been built before 1986 and known to have lead solder. There is no basis for believing that this requirement was met in either the 2014 or 2015 LCR sampling events conducted by the City. Hence, the City of Flint has not had a valid LCR sampling event since the switch to Flint River water.

MDEQ then lowered the minimum number of required samples from 100 to 60, making it look like the City of Flint had met the target. MDEQ also did not question the City's open acknowledgement that homes from 2014 had not been re-sampled, or that high risk (Tier 1) sites were not used.
The original report, due July 10th, was also late by several weeks. All of these violations of federal law were glossed over, to make it appear that the City had passed its lead testing with flying colors. Just like that, according to MDEQ at least, the City of Flint had no LCR violations at all.

> **ACLU-Michigan FOIA**. The timing by which the "revised" LCR report was created, is also of interest. On July 22, 2015, the ACLU-Michigan submitted a FOIA to MDEQ, requesting the City of Flint's LCR report supposedly due on July 10, 2015. The City's original LCR report with all the obvious problems is dated July 28, 2015. MDEQ never provided the ACLU-Michigan with the original LCR report. Instead, they created the scrubbed revised report, on August 20, 2015, and sent that report to ALCU-Michigan (from the City of Flint) the next day. In the

comments section of the report, Flint openly states ***"Revised report after conference call with DEQ staff. Two samples were removed from list for not meeting sample criteria, and due to population the number of samples was reduced to 60."***

> MDEQ to FlintWaterStudy.org FOIA: What conference call? On September 9, 2015, Virginia Tech submitted a FOIA to MDEQ explicitly requesting records and minutes of the conference call between DEQ staff and Flint cited in the revised LCR report. This FOIA request has been denied by MDEQ, because ***"Your request does not include the date/time of the conference call and who from the Department of Environmental Quality participated on the conference call."*** FlintWaterStudy.org immediately appealed the withholding of documents related to the conference call to the State of Michigan. On September 28th, our appeal was denied. We may commence a civil action if we do not agree with the decision.

> Handling Miguel Del Toral. MDEQ obviously had a major problem on its hands with EPA's lead-in-water expert Miguel Del Toral. On August 4th 2015, Lee-Anne Walters and Melissa Mays met with MDEQ officials to discuss Flint's lead in water problems. The MDEQ officials participating in the meeting were identified by Mays and Walters, as Liane Shekter-Smith (Chief of the Office of Drinking Water and Municipal Assistance), Stephen Busch and Brad Wurfel.

According to Walters and Mays, Shekter-Smith bragged that ***"Mr. Del Toral has been handled,"*** and that Flint residents would not be hearing from him again. Moreover,

MDEQ asserted that Mr. Del Toral's interim memo detailing the many problems with Flint's (non-existent) corrosion control program ***"would never be finalized."*** Just yesterday, NPR released a slightly different, but enlightening version of Wurfel's take on Del Toral and the memo:

MDEQ spokesman Brad Wurfel says the report was the work of a "rogue employee," and promised the final report — not yet released — would tell a much different story.

Mays and Walters vividly recall Wurfel, smirking or laughing, whenever they expressed concern about elevated lead in Flint's water. Looking back on the exchange yesterday, Mays stated ***"It is shocking how their refusal to admit they made a mistake, trumped the dangers their actions pose to Flint's children."***

Angered, Lee-Anne Walters then called Edwards, and informed him that Del Toral would no longer be working on Flint water issues, and the two discussed the clear implication that EPA bureaucrats had intervened to prevent Del Toral from further exposing MDEQ's numerous blunders and the health threat to Flint residents. She further stated that ***"It is too late for my son, but I will not stand by and let this happen to another other innocent child in Flint."***

Clearly, the MDEQ, City of Flint and even the USEPA (with the obvious exception of Del Toral) have proved themselves unworthy of the public trust. Flint residents have been left to fend for themselves, when it comes to dealing with the dangers of high lead in their water.

FlintWaterStudy was launched an hour after the phone call from Ms. Walters, to help the citizens of Flint deal with the lead-in-water crisis that MDEQ created, and to correct any false statements by uncaring agencies that have left Flint's children in harm's way.

FOIA Documents:

Emails between MDEQ, USEPA, and Ms. LeeAnne Walters:

From: Scott, Allison (GOV)
Sent: Tuesday, October 06, 2015 8:14 AM
To: Clement, Elizabeth (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV)
Subject: Re: Flint Water updates

What is most effective accurate rout? Dan provided update for briefing each day or does Comms shop speak to DEQ Comms and provide?

Sent from my iPhone

> On Oct 6, 2015, at 8:05 AM, Snyder, Rick (GOV) <[redacted]wrote:
>
> We need a better update system re Flint Water.
>
> I saw in the press this am that DHHS announced yesterday that water filters would start being given out today. This should have come internally with more detail. I had press questions last night.
>
> Overall, we should have a daily report on Flint until our recommendations are fully implemented.
>
> For example:
> 1. What are the water test results from the public schools?
> 2. How many free test have been requested? How many have been done? How many remain and how long have they been waiting? What are the results - no lead, lead consistent with history, higher levels?
> 3. How many filters have been distributed? How many unfulfilled requests?
> 4. New blood test results? Especially in the two zip codes.
> 5. Analysis of tech advisory group
> 6. Analysis of the GLWA vs. Flint River vs. KWA.
>
> Thanks
> Rick
>
> Sent from my iPad

From: Scott, Allison (GOV)
Sent: Tuesday, October 06, 2015 8:24 AM
To: Clement, Elizabeth (GOV)
Cc: Agen, Jarrod (GOV); Muchmore, Dennis (GOV)
Subject: Re: Flint Water updates

I asked Dan to have his team reach out and include relevant other Dept info

Sent from my iPhone

> On Oct 6, 2015, at 8:22 AM, Clement, Elizabeth (GOV) <clemente@michigan.gov> wrote:
>
> Nick Lyon plays a part in all of this too with testing and filters etc. We will need his updates as well.
>
> Sent from my iPad
>
>> On Oct 6, 2015, at 8:20 AM, Agen, Jarrod (GOV) <AgenJ@michigan.gov> wrote:
>>
>> Update from Dan in briefing. Comms to also send update for briefing on stories or announcements upcoming. But Dan will have most accurate testing and analysis details to report.
>>
>>
>>
>>
>>> On Oct 6, 2015, at 8:14 AM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:
>>>
>>> What is most effective accurate rout? Dan provided update for briefing each day or does Comms shop speak to DEQ Comms and provide?
>>>
>>> Sent from my iPhone
>>>
>>>> On Oct 6, 2015, at 8:05 AM, Snyder, Rick (GOV) <[redacted]> wrote:
>>>>
>>>> We need a better update system re Flint Water.
>>>>
>>>> I saw in the press this am that DHHS announced yesterday that water filters would start being given out today. This should have come internally with more detail. I had press questions last night.
>>>>
>>>> Overall, we should have a daily report on Flint until our recommendations are fully implemented.
>>>>
>>>> For example:
>>>> 1. What are the water test results from the public schools?
>>>> 2. How many free test have been requested? How many have been done? How many remain and how long have they been waiting? What are the results - no lead, lead consistent with history, higher levels?
>>>> 3. How many filters have been distributed? How many unfulfilled requests?
>>>> 4. New blood test results? Especially in the two zip codes.
>>>> 5. Analysis of tech advisory group
>>>> 6. Analysis of the GLWA vs. Flint River vs. KWA.

>>>>
>>>> Thanks
>>>> Rick
>>>>
>>>> Sent from my iPad

From: Muchmore, Dennis (GOV)
Sent: Tuesday, October 06, 2015 8:35 AM
To: Scott, Allison (GOV)
Cc: Clement, Elizabeth (GOV); Agen, Jarrod (GOV)
Subject: Re: Flint Water updates

Treasury should have financial analysis on potential of moving back to DWSD done today.

Sent from my iPhone

> On Oct 6, 2015, at 8:23 AM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:
>
> I asked Dan to have his team reach out and include relevant other Dept
> info
>
> Sent from my iPhone
>
>> On Oct 6, 2015, at 8:22 AM, Clement, Elizabeth (GOV) <clemente@michigan.gov> wrote:
>>
>> Nick Lyon plays a part in all of this too with testing and filters etc. We will need his updates as well.
>>
>> Sent from my iPad
>>
>>> On Oct 6, 2015, at 8:20 AM, Agen, Jarrod (GOV) <AgenJ@michigan.gov> wrote:
>>>
>>> Update from Dan in briefing. Comms to also send update for briefing on stories or announcements upcoming. But Dan will have most accurate testing and analysis details to report.
>>>
>>>
>>>
>>>
>>>> On Oct 6, 2015, at 8:14 AM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:
>>>>
>>>> What is most effective accurate rout? Dan provided update for briefing each day or does Comms shop speak to DEQ Comms and provide?
>>>>
>>>> Sent from my iPhone
>>>>
>>>>> On Oct 6, 2015, at 8:05 AM, Snyder, Rick (GOV) <[redacted] wrote:
>>>>>
>>>>> We need a better update system re Flint Water.
>>>>>
>>>>> I saw in the press this am that DHHS announced yesterday that water filters would start being given out today. This should have come internally with more detail. I had press questions last night.
>>>>>
>>>>> Overall, we should have a daily report on Flint until our recommendations are fully implemented.
>>>>>
>>>>> For example:

>>>>> 1. What are the water test results from the public schools?
>>>>> 2. How many free test have been requested? How many have been done? How many remain and how long have they been waiting? What are the results - no lead, lead consistent with history, higher levels?
>>>>> 3. How many filters have been distributed? How many unfulfilled requests?
>>>>> 4. New blood test results? Especially in the two zip codes.
>>>>> 5. Analysis of tech advisory group 6. Analysis of the GLWA vs.
>>>>> Flint River vs. KWA.
>>>>>
>>>>> Thanks
>>>>> Rick
>>>>>
>>>>> Sent from my iPad

From: Scott, Allison (GOV)
Sent: Tuesday, October 06, 2015 8:37 AM
To: Muchmore, Dennis (GOV)
Cc: Clement, Elizabeth (GOV); Agen, Jarrod (GOV)
Subject: Re: Flint Water updates

Good deal

Dan and Gov will speak about 12/30 today for today's verbal update as well

Sent from my iPhone

> On Oct 6, 2015, at 8:34 AM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:
>
> Treasury should have financial analysis on potential of moving back to DWSD done today.
>
> Sent from my iPhone
>
>> On Oct 6, 2015, at 8:23 AM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:
>>
>> I asked Dan to have his team reach out and include relevant other
>> Dept info
>>
>> Sent from my iPhone
>>
>>> On Oct 6, 2015, at 8:22 AM, Clement, Elizabeth (GOV) <clemente@michigan.gov> wrote:
>>>
>>> Nick Lyon plays a part in all of this too with testing and filters etc. We will need his updates as well.
>>>
>>> Sent from my iPad
>>>
>>>> On Oct 6, 2015, at 8:20 AM, Agen, Jarrod (GOV) <AgenJ@michigan.gov> wrote:
>>>>
>>>> Update from Dan in briefing. Comms to also send update for briefing on stories or announcements upcoming. But Dan will have most accurate testing and analysis details to report.
>>>>
>>>>
>>>>
>>>>
>>>>> On Oct 6, 2015, at 8:14 AM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:
>>>>>
>>>>> What is most effective accurate rout? Dan provided update for briefing each day or does Comms shop speak to DEQ Comms and provide?
>>>>>
>>>>> Sent from my iPhone
>>>>>
>>>>>> On Oct 6, 2015, at 8:05 AM, Snyder, Rick (GOV) <[redacted]> wrote:
>>>>>>

>>>>>> We need a better update system re Flint Water.
>>>>>>
>>>>>> I saw in the press this am that DHHS announced yesterday that water filters would start being given out today. This should have come internally with more detail. I had press questions last night.
>>>>>>
>>>>>> Overall, we should have a daily report on Flint until our recommendations are fully implemented.
>>>>>>
>>>>>> For example:
>>>>>> 1. What are the water test results from the public schools?
>>>>>> 2. How many free test have been requested? How many have been done? How many remain and how long have they been waiting? What are the results - no lead, lead consistent with history, higher levels?
>>>>>> 3. How many filters have been distributed? How many unfulfilled requests?
>>>>>> 4. New blood test results? Especially in the two zip codes.
>>>>>> 5. Analysis of tech advisory group 6. Analysis of the GLWA vs.
>>>>>> Flint River vs. KWA.
>>>>>>
>>>>>> Thanks
>>>>>> Rick
>>>>>>
>>>>>> Sent from my iPad

From: Wurfel, Sara (GOV)
Sent: Tuesday, October 06, 2015 9:17 AM
To: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Baird, Richard (GOV); Hollins, Harvey (GOV); Agen, Jarrod (GOV)
Cc: Murray, David (GOV)
Subject: FW: PRESS RELEASE: Kroger & Al Serra Water Donations
Attachments: Kroger & Al Serra Water Donation.pdf

FYI

From: Jason Lorenz [mailto:jlorenz@cityofflint.com]
Sent: Tuesday, October 06, 2015 8:34 AM
Subject: PRESS RELEASE: Kroger & Al Serra Water Donations

For Immediate Release

Kroger Donates 19 Palettes of Bottled Water to Mayor Dayne Walling who Plans to Donate it to Flint Community Schools, Al Serra Auto Plaza to Hold Water Donation Drive to Help Flint Senior Centers

Flint, Michigan – October 6, 2015 – Mayor Dayne Walling has received a donation from Kroger grocers of 19 palettes of water to help those in the community struggling with water. The Mayor has in turn donated that water to the Flint Community Schools for distribution to students. In addition to the Kroger donation, Al Serra Auto Plaza of Grand Blanc has announced plans to hold a month long bottled water donation drive to collect water for distribution to Flint's two Senior Centers as well as the Flint Community Schools. Details on that donation drive will be available at Al Serra's Facebook page today.

"Our children are a top priority given the effects lead can have on their development," said Mayor Walling. "Any bottled water donations we receive will be used for our children and other high risk groups, such as our seniors. We continue to recommend that residents follow the instructions of the Genesee County Health Department concerning lead in drinking water."

The City has been working with local aid agencies to provide water relief to Flint residents. Last week the City worked with the United Way of Genesee County to provide residents with water tap filters and gave away over 3,000 of them on Saturday, October 3, 2015 at the UM-Flint Recreation Center. On Friday it also was announced by the State of Michigan that $1 Million has been allocated to providing residents with water filters.

–END–`

-Jason Lorenz
Public Information Officer
City of Flint
(810) 237-2039 (Office)
[redacted] (Cell)
jlorenz@cityofflint.com

Dayne Walling
Mayor

Natasha L. Henderson
City Administrator

Jason Lorenz
Public Information Officer
Office: (810) 237-2039
Cell: [redacted]
jlorenz@cityofflint.com

For Immediate Release

Kroger Donates 19 Palettes of Bottled Water to Mayor Dayne Walling who Plans to Donate it to Flint Community Schools, Al Serra Auto Plaza to Hold Water Donation Drive to Help Flint Senior Centers

Flint, Michigan – October 6, 2015 – Mayor Dayne Walling has received a donation from Kroger grocers of 19 palettes of water to help those in the community struggling with water. The Mayor has in turn donated that water to the Flint Community Schools for distribution to students. In addition to the Kroger donation, Al Serra Auto Plaza of Grand Blanc has announced plans to hold a month long bottled water donation drive to collect water for distribution to Flint's two Senior Centers as well as the Flint Community Schools. Details on that donation drive can be found at Al Serra's Facebook page.

"Our children are a top priority given the effects lead can have on their development," said Mayor Walling. "Any bottled water donations we receive will be used for our children and other high risk groups, such as our seniors. We continue to recommend that residents follow the instructions of the Genesee County Health Department concerning lead in drinking water."

The City has been working with local aid agencies to provide water relief to Flint residents. Last week the City worked with the United Way of Genesee County to provide residents with water tap filters and gave away over 3,000 of them on Saturday, October 3, 2015 at the UM-Flint Recreation Center. On Friday it also was announced by the State of Michigan that $1 Million has been allocated to providing residents with water filters.

–END–

From: Steve Arwood (MEDC) <arwoods1@michigan.org>
Sent: Tuesday, October 06, 2015 5:02 PM
To: Agen, Jarrod (GOV); Clement, Elizabeth (GOV)
Cc: Tedder, Greg (LARA); Hendges, Jeremy (LARA); Brown, Melanie (LARA)
Subject: Flint

Watching this issue and wondering if they need short term financial assistance for infrastructure. Probably could help there, but not sure what all the issues are. We can take a look at anything that may be needed. Let us know.

STEVE ARWOOD, DIRECTOR
STATE OF MICHIGAN | TALENT AND ECONOMIC DEVELOPMENT
ARWOODS1@MICHIGAN.ORG | LANSING: 517-241-1400

TED
TALENT AND ECONOMIC DEVELOPMENT

Steve Arwood
Chief Executive Officer
Michigan Economic Development Corporation
300 N. Washington Square | Lansing, MI 48913
Office: 517.241.1400
Arwoods1@michigan.org

This message contains information which may be confidential and privileged. Unless you are the intended recipient (or authorized to receive this message for the intended recipient), you may not use, copy, disseminate or disclose to anyone the message or any information contained in the message. If you have received the message in error, please advise the sender by reply e-mail, and delete the message. Thank you very much.

TALENT AND ECONOMIC
DEVELOPMENT

From: Shaler, Karen (DEQ) on behalf of Wyant, Dan (DEQ)
Sent: Tuesday, October 06, 2015 5:05 PM
To: Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Dickinson, Sarah (GOV)
Subject: Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

The Flint Drinking Water Action Plan was announced on October 2, 2015. It included the following:

- Testing in Flint public schools immediately
- Offered free water testing to Flint residents
- Provided free water filters to residents with concerns or who are included in state assistance programs
- Expanding health exposure testing of individual homes
- Accelerating corrosion controls in the Flint drinking water system
- Accelerating water system improvements to address replacing lead service lines
- Expediting the completion of the Karegnondi Water Authority pipeline
- Expanding a Safe Drinking Water Technical Advisory Committee
- Named Dr. Eden Wells as the Flint drinking water public health advisor
- Boosted a comprehensive lead education program

Testing in Flint Public Schools Immediately

Samples were taken on October 2 and were received at DEQ laboratory over the weekend. Test results to date indicate 37 samples tested, 4 of which exceeded a federal action level, and 1 of those 4 was a significant outlier. We will be compiling detailed information about which schools and area codes the test results came from and will be providing that information in our next update.

We have met with DHHS, and we are working on developing response protocols, a communications plan, and guidance for schools when this data is reported.

Offered Free Water Testing to Flint Residents

We have received 4 sets of samples from Flint that represent individual residents. We will be compiling the total number and the results of those samples and reporting in a future report.

Provided Free Water Filters to Residents with Concerns or Who are Included in State Assistance Programs

DHHS held organizational meetings in Flint on October 5, and filter distribution by DHHS started on October 6. Nick Lyon in DHHS is taking the lead in filter distribution.

Expanding Health Exposure Testing of Individual Homes

Dr. Wells and Dan Wyant have been in conversations about a protocol for exposure testing. Dr. Wells will take the lead on developing the protocol.

Accelerating Corrosion Controls in the Flint Drinking Water System

A conference call was held with U.S. EPA Regional Administrator Susan Hedman and national corrosion control experts. We asked two questions:

1. **Which is a safer water source – DWSD or Flint River?**
2. **If you don't have an opinion on the safer source, what criteria should we use for an evaluation?**

EPA staff would not commit to a preference, but their evaluation of the criteria clearly lead to the conclusion that DWSD was a safer water source. EPA committed to submitting technical assistance to the Safe Drinking Water Technical Advisory Committee (Advisory Committee) meeting, which will be held on October 7 at 2:00 p.m. in Flint City Hall.

DEQ met with the Flint Mayor, the city manager, and their water staff. Flint agreed to expediting corrosion controls. We discussed the agenda for the Advisory Committee meeting. The Advisory Committee will be asked to evaluate two respective water sources at their Wednesday meeting.

We expect the Advisory Committee to recommend the water source that would address not only lead safety but also other water safety issues.

Accelerating Water System Improvements to Address Replacing Lead Service Lines

Conversations with Congressman Kildee and EPA have clarified the state would be allowed to use Drinking Water Revolving Loan funds to replace private drinking water service lines. Senator Ananich has been approached to introduce language clarifying the state's authority.

Expediting the Completion of the Karegnondi Water Authority Pipeline

Dan Wyant has talked to Genesee County Drain Commissioner Jeff Wright. Mr. Wright has provided a list of issues that would help expedite the completion of the Karegnondi Water Authority pipeline. They include truck weight and frost law exemptions, talent identification, and expediting permits.

Expanding a Safe Drinking Water Technical Advisory Committee

EPA has appointed their national technical expert to the Advisory Committee, and we have appointed Alfred Franzblau, M.D., Professor of Environmental Health Services, University of Michigan, to the Advisory Committee.

Named Dr. Eden Wells as the Flint Drinking Water Public Health Advisor

Boosted a Comprehensive Lead Education Program

Other Updates

- Dan Wyant was interviewed on October 6 by CBS Evening News during filter distribution in Flint. Questions asked were:
    - Was it a mistake to go to Flint River water?

Answer: We draw water from the surface waters; we treat it to safe drinking water standards. At issue is lead exposure. Lead exposure must be addressed. Actions are being taken to address the issue.

- Did you put kids at risk?
  Answer: Lead exposure is a serious issue, and steps need to be taken to limit lead exposure.
- Why did it take so long?
  Answer: DEQ has been there from the beginning addressing the issue of Flint water. Recent tests justify and require the actions taken. Action steps address short-term, intermediate, and long-term lead issues to ensure public safety and confidence of the drinking water.

- Dan Wyant also spoke to the Governor about Flint funding needs. A meeting is scheduled for October 7 at 8:00 a.m. to further discuss proposals.
- What we are telling Flint citizens is:
  - Have your water tested
  - Use only cold water for drinking, cooking, and preparing formula
  - Run water before use if it has not been used for several hours
  - Obtain a water filter approved for lead removal
  - Purchase lead-free plumbing components
  - Remove entire lead service lines

From: Zimmer, Mike (LARA)
Sent: Tuesday, October 06, 2015 6:25 PM
To: Clement, Elizabeth (GOV); Agen, Jarrod (GOV)
Subject: Flint

I am scratching my head a bit over what LARA could do to assist in the Flint situation. I can think of a couple things, but they are pretty tangential:

1) MIOSHA: The bureau has a lab - I have reached out to Martha Yoder, the bureau director, to see if they have water testing capabilities.
2) BCC: We can do inspections (and permitting) upon request - like we tried to do in the Detroit demo project. Irv Poke, the bureau director there, has already talked to DEQ about some pipe inspection in Flint schools, but we may be able to go farther if there is a need.
3) MAE/PSC: Really can't think of anything, but they have lots of weird programs, so I have reached out to Val for suggestions.
4) Organization: The Flint situation could benefit from a "all hands on deck" working group like that we have done for the last several years with winter fuels. Mostly the same cast of characters with a few departmental additions and a switch in the impacted interest groups. If Dan (or someone else) wants to run lead, I could loan Karen Towne to either staff/organize the meetings/calls or train the department staff person on the template of how these work. She is pretty experienced in organizing this kind of thing.

Will keep thinking, but that's all I can come up with on short notice.

Mike

Sent from my iPad

From: Hollins, Harvey (GOV)
Sent: Wednesday, October 07, 2015 5:14 PM
To: Wyant, Dan (DEQ)
Cc: Muchmore, Dennis (GOV); Agen, Jarrod (GOV)
Attachments: KWA Contract (amended) 130165.2.pdf; ATT00001.txt

Resolution: 130165.2

Presented: 3-11-13

Adopted: 3-25-13

AMENDED RESOLUTION TO PURCHASE CAPACITY FROM KAREGNONDI WATER AUTHORITY

BY THE MAYOR:

The Karegnondi Water Authority (KWA) is a governmental consortium of cities and counties in southeastern Michigan that was created to build a water pipeline that will provide water from Lake Huron to interested communities in Sanilac, Lapeer, and Genesee counties. The incorporating bodies that created the KWA are Sanilac County, Lapeer County, Genesee County, the City of Flint, and the City of Lapeer.

The City of Flint is currently in a year to year contract with the City of Detroit for the purchase of water. A study was conducted that projected that staying with Detroit will cost the region $2.1 billion over the next 25 years. In contrast, if the region builds its own pipeline, the projected costs are $1.9 billion over the same period. After the initial 25 year period, the projected costs would be less then 25% of the projected water costs from Detroit.

In order to build the pipeline, the KWA needs commitment from its members regarding the capacity that each member will purchase in the pipeline. The KWA is allowed to withdraw 85 million gallons of water per day. Capacity is available to members in increments of 1 million gallons per day known as units. For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one time fee of $32,300.00. Additionally, the buyer shall pay to the KWA not less then $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount not to exceed $355,300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00 the buyer has a right to cancel the contract.

The purchase of capacity along with the payment of other costs necessary to operate the pipeline gives the member a right to water for sale to its customers. The buyer has a right to resell capacity and water rights. Each party entering into a capacity contract shall also be entitled to appoint additional board members equal to the party's percentage share of the total capacity under contract.

The City of Flint has decided that it is in its long term best interests to enter into a contract with the KWA to purchase SIXTEEN (16) units of capacity, plus TWO (2) units from the Flint River.

IT IS RESOLVED that City officials are authorized to enter into a contract with KWA to purchase SIXTEEN (16) units of capacity, plus TWO (2) units from the Flint River.

IT IS FURTHER RESOLVED that the City Administrator is authorized to provide KWA information needed to administer the contract and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract.

APPROVED AS TO FORM:

Peter M. Bade
Chief Legal Officer

APPROVED AS TO FINANCE:

Gerald Ambrose
Finance Director

APPROVED BY MAYOR:

Dayne Walling
Mayor

APPROVED BY CITY COUNCIL
ON: March 25, 2013

Inez Brown
Clerk, City of Flint

APPROVED BY
CITY COUNCIL
MAR 25 2013

S:\JP\Ordinances and Resos\KWA.03.08.13.doc

From: Baird, Richard (GOV)
Sent: Wednesday, October 07, 2015 7:12 PM
To: Hollins, Harvey (GOV); Agen, Jarrod (GOV); Biehl, Laura (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV)
Subject: Fwd: URGENT review please -- Draft Flint water release
Attachments: ATT00001.htm; 151008 Flint water release_V2.docx; ATT00002.htm

I think this looks good but are we missing an opportunity to shout out all the entities that have stepped up to help? GM, Home Depot, etc. etc.?

If Harvey has the full list, perhaps it could even be attached as an addendum. The point is that a lot of people did come together to address the problem, including the private sector and various volunteer organizations. I think it says something special about this state rallying to help one of its cities.

Rich

Sent from my iPad

Begin forwarded message:

> **From:** "Biehl, Laura (GOV)" <BiehlL@michigan.gov>
> **Date:** October 7, 2015 at 6:46:28 PM EDT
> **To:** "Murray, David (GOV)" <MurrayD1@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Wurfel, Sara (GOV)" <WurfelS@michigan.gov>, "Heaton, Anna (GOV)" <HeatonA@michigan.gov>, "Kennedy, Jordan (GOV)" <KennedyJ4@michigan.gov>, "Brown, Jessica (GOV)" <BrownJ53@michigan.gov>, "Paciorek, Josh (GOV)" <Paciorekj@michigan.gov>, "Lasher, Geralyn (DHHS)" <lasherg@michigan.gov>, "Minicuci, Angela (DHHS)" <MinicuciA@michigan.gov>, "Eisner, Jennifer (DHHS)" <EisnerJ@michigan.gov>, "Wurfel, Sara (GOV)" <WurfelS@michigan.gov>, "Tommasulo, Karen (DEQ)" <TommasuloK@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Posthumus, Dick (GOV)" <Posthumusd@michigan.gov>, "Baird, Richard (GOV)" <bairdr@michigan.gov>, "Calley, Brian (GOV)" <[redacted]"Forstner, Nathaniel (GOV)" <forstnern1@michigan.gov>
> **Subject: RE: URGENT review please -- Draft Flint water release**
>
> See new version attached. Small revisions made and placeholders added for Mayor and Mott Foundation Quotes.

> **From:** Murray, David (GOV)
> **Sent:** Wednesday, October 07, 2015 6:12 PM
> **To:** Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Wurfel, Sara (GOV) <WurfelS@michigan.gov>; Biehl, Laura (GOV) <BiehlL@michigan.gov>; Heaton, Anna (GOV) <HeatonA@michigan.gov>; Kennedy, Jordan (GOV) <KennedyJ4@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>; Paciorek, Josh (GOV) <Paciorekj@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Minicuci, Angela (DHHS) <MinicuciA@michigan.gov>; Eisner, Jennifer (DHHS) <EisnerJ@michigan.gov>; Wurfel, Sara (GOV) <WurfelS@michigan.gov>; Tommasulo, Karen (DEQ) <TommasuloK@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Calley, Brian

(GOV) <[redacted]>; Forstner, Nathaniel (GOV) <forstnern1@michigan.gov>
Subject: URGENT review please -- Draft Flint water release

Team,

Please review this draft press release for the Thursday announcement in Flint. This incorporates some suggested edits to the strong draft from DEQ earlier today.

Thank you very much.

Gov. Rick Snyder: Move back to Detroit water provides best protection for public health in Flint

State, Mott Foundation and city form partnership to fund switch

FLINT, Mich. – Flint families and children will be better protected by reconnecting with the Great Lakes Water Authority as the source of the city's drinking water, Gov. Rick Snyder said.

Snyder said Thursday that he will request the state Legislature to provide a portion of the $12 million needed to reconnect with the authority, with the Flint city government providing $2 million and the Charles Stewart Mott Foundation donating $4 million.

The Michigan Department of Health and Human Services and the Department of Environmental Quality today also committed an additional $3.5 million for water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

Flint city leaders requested the state's help to fund the reconnection after a Wednesday meeting of Flint's Technical Advisory Committee. Flint's move to the Great Lakes Water Authority is expected to cost about $1.3 million per month until the Karegnondi Water Authority is completed next summer.

"All Flint residents need clean, safe drinking water," Snyder said. "The technical experts helping the city on its water advisory all agree this move back to the Great Lakes Water Authority provides the best public health protection for children and families. This effort today is the result of people coming together to solve a problem. I appreciate Detroit's willingness to reconnect with Flint, the Mott Foundation's generous donation, and the dedication of all parties to come together to protect Flint families and children."

The move to Detroit water, which is drawn from Lake Huron, carries many public health benefits. As large bodies of water, the Great Lakes are naturally prone to fewer problems from large rain events and other runoff issues that can be present in shallower rivers. Additionally, the Great Lakes Water Authority has already fully optimized its corrosion control, using phosphates to help coat the insides of pipes and prevent lead from leaching into the water.

However, reconnecting with the authority will not completely resolve the city's problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control. Additionally, some households in the city could experience lead in their drinking water until all lead pipes and plumbing are replaced.

To best protect public health, Snyder said state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead in water.

Free filters are available for current MDHHS clients at the 125 E. Union St. or 4809 Clio Road MDHHS office locations.

For residents who are not currently enrolled in MDHHS assistance programs, free filters are available at the Genesee County Community Action Resource Department offices at 2727 Lippincott and 601 North Saginaw in Flint. Staff will be at all four locations from 9 a.m. to 4 p.m., Monday through Friday, to distribute filters and assist residents who have questions about proper installation.

At the Lippincott location only, extended hours will be offered this weekend, including until 7 p.m. on Thursday and Friday and from 10 a.m. to 2 p.m. on Saturday.

Other good practices for residents concerned about lead include turning on the cold water tap and running the water until it's as cold as it will go. Additionally, only use cold water for cooking, drinking and especially mixing baby formula.

School test results released; more investigation planned

The state today also released the first results from its lead screening program in schools and homes. Of 37 total samples taken at 13 buildings, four samples spread over three buildings exceeded the federal action level of 15 parts per billion.

However, this sampling provides only an initial screen, and the state is committing to further testing water and inspecting plumbing at these schools. Until testing is complete, schools are advised to continue using bottled water and filtration as a precaution to protect children.

In addition, free testing is still available for any other Flint school, including daycares and Head Starts. Free testing is also available for any Flint resident.

Additional information, including more detailed lead screening results, is available at www.michigan.gov/flintwater.

###

Dave Murray
Deputy Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted], mobile
Twitter:@michigandmurray

STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

RICK SNYDER
GOVERNOR

BRIAN CALLEY
LT. GOVERNOR

CONTACTS:	FOR IMMEDIATE RELEASE
Sara Wurfel or Dave Murray Governor's Office: 517-335-6397 Brad Wurfel, 517-284-6713 Department of Environmental Quality Jennifer Eisner, 517-230-9804 Department of Health and Human Services	Thursday, Oct. 8, 2015

Gov. Rick Snyder: Move back to Detroit water provides best protection for public health in Flint

State, Mott Foundation and city form partnership to fund switch

FLINT, Mich. – Flint families and children will be better protected by reconnecting with the Great Lakes Water Authority as the source of the city's drinking water, Gov. Rick Snyder said.

Snyder said Thursday that he will request the state Legislature to provide half, or $6 million, of the $12 million needed to reconnect with the authority. The Flint city government will provide $2 million and the Charles Stewart Mott Foundation will donate $4 million.

"All Flint residents need clean, safe drinking water," Snyder said. "The technical experts helping the city on its water advisory all agree this move back to the Great Lakes Water Authority provides the best public health protection for children and families. This effort today is the result of people coming together to solve a problem. I appreciate Detroit's willingness to reconnect with Flint, the Mott Foundation's generous donation, and the dedication of all parties to come together to protect Flint families and children."

The Michigan Departments of Environmental Quality and Health and Human Services today also committed an additional $3.5 million for water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

Flint city leaders requested the state's help to fund the reconnection after a Wednesday meeting of Flint's Technical Advisory Committee. Flint's move to the Great Lakes Water Authority is expected to cost about $1.3 million per month until the Karegnondi Water Authority is completed next summer.

INSERT MAYOR QUOTE HERE

The move to Detroit water, which is drawn from Lake Huron, carries many public health benefits. As large bodies of water, the Great Lakes are naturally prone to fewer problems from large rain events and other runoff issues that can be present in shallower rivers. Additionally, the Great Lakes Water Authority has already fully optimized its corrosion control, using phosphates to help coat the insides of pipes and prevent lead from leaching into the water.

However, reconnecting with the authority will not completely resolve the city's problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control. Additionally, some households in the city could experience lead in their drinking water until all lead pipes and plumbing are replaced.

INSERT MOTT FOUNDATION QUOTE HERE

To best protect public health, Snyder said state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead exposure.

Free filters are available for current MDHHS clients at the 125 E. Union St. or 4809 Clio Road MDHHS office locations. For residents who are not currently enrolled in MDHHS assistance programs, free filters are available at the Genesee County Community Action Resource Department offices at 2727 Lippincott and 601 North Saginaw in Flint. Staff will be at all four locations from 9 a.m. to 4 p.m., Monday through Friday, to distribute filters and assist residents who have questions about proper installation. At the Lippincott location only, extended hours will be offered this weekend, including until 7 p.m. on Thursday and Friday and from 10 a.m. to 2 p.m. on Saturday.

Other good practices for residents concerned about lead include turning on the cold water tap and running the water until it's as cold as it will go. Additionally, only use cold water for cooking, drinking and especially mixing baby formula.

School test results released; more investigation planned

The state today also released the first results from its lead screening program in schools and homes. Of 37 total samples taken at 13 buildings, four samples spread over three buildings exceeded the federal action level of 15 parts per billion.

However, this sampling provides only an initial screen, and the state is committing to further testing water and inspecting plumbing at these schools. Until testing is complete, schools are advised to continue using bottled water and filtration as a precaution to protect children.

In addition, free testing is still available for any other Flint school, including daycares and Head Starts. Free testing is also available for any Flint resident.

Additional information, including more detailed lead screening results, is available at www.michigan.gov/flintwater.

###

From: Hollins, Harvey (GOV)
Sent: Wednesday, October 07, 2015 7:52 PM
To: Baird, Richard (GOV)
Cc: Agen, Jarrod (GOV); Biehl, Laura (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV)
Subject: Re: URGENT review please -- Draft Flint water release

Thanks Rich. I'll send a list of players that I am aware of later. I have two observations re the release below.

1)

Gov. Rick Snyder: Move back to Detroit water provides best protection for public health in Flint UNTIL KWA IS ONLINE

State, Mott Foundation and city form partnership to fund switch

FLINT, Mich. – Flint families and children will be better protected by reconnecting with the Great Lakes Water Authority as the source of the city' s drinking water UNTIL KWA IS ONLINE, Gov. Rick Snyder said.

******* although KWA is referenced later, the opening implies that this is a permanent switch and that KWA will be substandard to GLWA********

2)

> "The move to Detroit water, which is drawn from Lake Huron, carries many public health benefits. As large bodies of water, the Great Lakes are naturally prone to fewer problems from large rain events and other runoff issues that can be present in shallower rivers. Additionally, the Great Lakes Water Authority has already fully optimized its corrosion control, using phosphates to help coat the insides of pipes and prevent lead from leaching into the water. "

*****this is a good statement and true as long as all municipalities get there water from the Great Lakes. If not, are we saying that there are other communities that do not have optimum drinking water? *****

Best,
Harvey

On Oct 7, 2015, at 7:12 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:

> I think this looks good but are we missing an opportunity to shout out all the entities that have stepped up to help? GM, Home Depot, etc. etc.?

If Harvey has the full list, perhaps it could even be attached as an addendum. The point is that a lot of people did come together to address the problem, including the private sector and various volunteer organizations. I think it says something special about this state rallying to help one of its cities.

Rich

Sent from my iPad

Begin forwarded message:

> **From:** "Biehl, Laura (GOV)" <BiehlL@michigan.gov>
> **Date:** October 7, 2015 at 6:46:28 PM EDT
> **To:** "Murray, David (GOV)" <MurrayD1@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Wurfel, Sara (GOV)" <Wurfels@michigan.gov>, "Heaton, Anna (GOV)" <HeatonA@michigan.gov>, "Kennedy, Jordan (GOV)" <KennedyJ4@michigan.gov>, "Brown, Jessica (GOV)" <BrownJ53@michigan.gov>, "Paciorek, Josh (GOV)" <Pacioreki@michigan.gov>, "Lasher, Geralyn (DHHS)" <lasherg@michigan.gov>, "Minicuci, Angela (DHHS)" <MinicuciA@michigan.gov>, "Eisner, Jennifer (DHHS)" <EisnerJ@michigan.gov>, "Wurfel, Sara (GOV)" <Wurfels@michigan.gov>, "Tommasulo, Karen (DEQ)" <TommasuloK@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Posthumus, Dick (GOV)" <Posthumusd@michigan.gov>, "Baird, Richard (GOV)" <bairdr@michigan.gov>, "Calley, Brian (GOV)" <[redacted], "Forstner, Nathaniel (GOV)" <forstnern1@michigan.gov>
> **Subject: RE: URGENT review please -- Draft Flint water release**
>
> See new version attached. Small revisions made and placeholders added for Mayor and Mott Foundation Quotes.

> **From:** Murray, David (GOV)
> **Sent:** Wednesday, October 07, 2015 6:12 PM
> **To:** Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Biehl, Laura (GOV) <BiehlL@michigan.gov>; Heaton, Anna (GOV) <HeatonA@michigan.gov>; Kennedy, Jordan (GOV) <KennedyJ4@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>; Paciorek, Josh (GOV) <Pacioreki@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Minicuci, Angela (DHHS) <MinicuciA@michigan.gov>; Eisner, Jennifer (DHHS) <EisnerJ@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Tommasulo, Karen (DEQ) <TommasuloK@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Calley, Brian (GOV) <[redacted]; Forstner, Nathaniel (GOV) <forstnern1@michigan.gov>
> **Subject:** URGENT review please -- Draft Flint water release
>
> Team,
>
> Please review this draft press release for the Thursday announcement in Flint. This incorporates some suggested edits to the strong draft from DEQ earlier today.
>
> Thank you very much.

Gov. Rick Snyder: Move back to Detroit water provides best protection for public health in Flint

State, Mott Foundation and city form partnership to fund switch

FLINT, Mich. – Flint families and children will be better protected by reconnecting with the Great Lakes Water Authority as the source of the city's drinking water, Gov. Rick Snyder said.

Snyder said Thursday that he will request the state Legislature to provide a portion of the $12 million needed to reconnect with the authority, with the Flint city government providing $2 million and the Charles Stewart Mott Foundation donating $4 million.

The Michigan Department of Health and Human Services and the Department of Environmental Quality today also committed an additional $3.5 million for water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

Flint city leaders requested the state's help to fund the reconnection after a Wednesday meeting of Flint's Technical Advisory Committee. Flint's move to the Great Lakes Water Authority is expected to cost about $1.3 million per month until the Karegnondi Water Authority is completed next summer.

"All Flint residents need clean, safe drinking water," Snyder said. "The technical experts helping the city on its water advisory all agree this move back to the Great Lakes Water Authority provides the best public health protection for children and families. This effort today is the result of people coming together to solve a problem. I appreciate Detroit's willingness to reconnect with Flint, the Mott Foundation's generous donation, and the dedication of all parties to come together to protect Flint families and children."

The move to Detroit water, which is drawn from Lake Huron, carries many public health benefits. As large bodies of water, the Great Lakes are naturally prone to fewer problems from large rain events and other runoff issues that can be present in shallower rivers. Additionally, the Great Lakes Water Authority has already fully optimized its corrosion control, using phosphates to help coat the insides of pipes and prevent lead from leaching into the water.

However, reconnecting with the authority will not completely resolve the city's problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control. Additionally, some households in the city could experience lead in their drinking water until all lead pipes and plumbing are replaced.

To best protect public health, Snyder said state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead in water.

Free filters are available for current MDHHS clients at the 125 E. Union St. or 4809 Clio Road MDHHS office locations.

For residents who are not currently enrolled in MDHHS assistance programs, free filters are available at the Genesee County Community Action Resource Department offices at 2727 Lippincott and 601 North Saginaw in Flint. Staff will be at all four locations from 9 a.m. to 4 p.m., Monday through Friday, to distribute filters and assist residents who have questions about proper installation.

At the Lippincott location only, extended hours will be offered this weekend, including until 7 p.m. on Thursday and Friday and from 10 a.m. to 2 p.m. on Saturday.

Other good practices for residents concerned about lead include turning on the cold water tap and running the water until it's as cold as it will go. Additionally, only use cold water for cooking, drinking and especially mixing baby formula.

School test results released; more investigation planned

The state today also released the first results from its lead screening program in schools and homes. Of 37 total samples taken at 13 buildings, four samples spread over three buildings exceeded the federal action level of 15 parts per billion.

However, this sampling provides only an initial screen, and the state is committing to further testing water and inspecting plumbing at these schools. Until testing is complete, schools are advised to continue using bottled water and filtration as a precaution to protect children.

In addition, free testing is still available for any other Flint school, including daycares and Head Starts. Free testing is also available for any Flint resident.

Additional information, including more detailed lead screening results, is available at www.michigan.gov/flintwater.

###

Dave Murray
Deputy Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]mobile
Twitter:@michigandmurray

<151008 Flint water release_V2.docx>

From: Muchmore, Dennis (GOV)
Sent: Thursday, October 08, 2015 8:58 AM
To: Hollins, Harvey (GOV); Baird, Richard (GOV)
Cc: Agen, Jarrod (GOV); Biehl, Laura (GOV); Clement, Elizabeth (GOV)
Subject: RE: URGENT review please -- Draft Flint water release

If we list the names we'll undoubtedly miss someone. Great idea, but I don't think it will work. For instance, the kids in the Bay County districts are raising money for water purchases in the schools and you wouldn't want to leave them out. The Health Endowment Fund really doesn't deserve a lot of credit but they'll want it anyway, etc., etc.

From: Hollins, Harvey (GOV)
Sent: Thursday, October 8, 2015 8:08 AM
To: Baird, Richard (GOV) <bairdr@michigan.gov>
Cc: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Biehl, Laura (GOV) <BiehlL@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>
Subject: Re: URGENT review please -- Draft Flint water release

Listing names is going to be problematic since there are many firms that are engaged of which I am unaware:
1) [redacted]
2) GM
3) Flint Community Foundation
4) United Way of Flint
5) Absopure
6) Home Depot
7) UAW locals
8) Similac
9) A number of faith based organizations
10) Flint Food Bank
11) McClaren Hospital
12) Hurley Hospital

There are others that have contributed that I don't have information on.

It would be easier say something like, "I want to thank the number of people, organizations, philanthropic and corporations that have engaged to address the problem. They didn't point fingers and access blame, they saw the problem and contributed to solutions, and that action says something special about this state, we rally to help each other."

On Oct 7, 2015, at 7:12 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:

> I think this looks good but are we missing an opportunity to shout out all the entities that have stepped up to help? GM, Home Depot, etc. etc.?

If Harvey has the full list, perhaps it could even be attached as an addendum. The point is that a lot of people did come together to address the problem, including the private sector and various volunteer organizations. I think it says something special about this state rallying to help one of its cities.

Rich

Best,
Harvey Hollins III, Director
Governor's Office of Urban Initiatives

313.456.4994 (office)
[redacted] (Cell)

Begin forwarded message:

From: "Biehl, Laura (GOV)" <BiehlL@michigan.gov>
Date: October 7, 2015 at 6:46:28 PM EDT
To: "Murray, David (GOV)" <MurrayD1@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Wurfel, Sara (GOV)" <WurfelS@michigan.gov>, "Heaton, Anna (GOV)" <HeatonA@michigan.gov>, "Kennedy, Jordan (GOV)" <KennedyJ4@michigan.gov>, "Brown, Jessica (GOV)" <BrownJ53@michigan.gov>, "Paciorek, Josh (GOV)" <PaciorekJ@michigan.gov>, "Lasher, Geralyn (DHHS)" <lasherg@michigan.gov>, "Minicuci, Angela (DHHS)" <MinicuciA@michigan.gov>, "Eisner, Jennifer (DHHS)" <EisnerJ@michigan.gov>, "Wurfel, Sara (GOV)" <WurfelS@michigan.gov>, "Tommasulo, Karen (DEQ)" <TommasuloK@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Posthumus, Dick (GOV)" <Posthumusd@michigan.gov>, "Baird, Richard (GOV)" <bairdr@michigan.gov>, "Calley, Brian (GOV)" <[redacted], "Forstner, Nathaniel (GOV)" <forstnern1@michigan.gov>
Subject: RE: URGENT review please -- Draft Flint water release

See new version attached. Small revisions made and placeholders added for Mayor and Mott Foundation Quotes.

From: Murray, David (GOV)
Sent: Wednesday, October 07, 2015 6:12 PM
To: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Wurfel, Sara (GOV) <WurfelS@michigan.gov>; Biehl, Laura (GOV) <BiehlL@michigan.gov>; Heaton, Anna (GOV) <HeatonA@michigan.gov>; Kennedy, Jordan (GOV) <KennedyJ4@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>; Paciorek, Josh (GOV) <PaciorekJ@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Minicuci, Angela (DHHS) <MinicuciA@michigan.gov>; Eisner, Jennifer (DHHS) <EisnerJ@michigan.gov>; Wurfel, Sara (GOV) <WurfelS@michigan.gov>; Tommasulo, Karen (DEQ) <TommasuloK@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Calley, Brian (GOV) [redacted]; Forstner, Nathaniel (GOV) <forstnern1@michigan.gov>
Subject: URGENT review please -- Draft Flint water release

Team,

Please review this draft press release for the Thursday announcement in Flint. This incorporates some suggested edits to the strong draft from DEQ earlier today.

Thank you very much.

Gov. Rick Snyder: Move back to Detroit water provides best protection for public health in Flint

State, Mott Foundation and city form partnership to fund switch

FLINT, Mich. – Flint families and children will be better protected by reconnecting with the Great Lakes Water Authority as the source of the city's drinking water, Gov. Rick Snyder said.

Snyder said Thursday that he will request the state Legislature to provide a portion of the $12 million needed to reconnect with the authority, with the Flint city government providing $2 million and the Charles Stewart Mott Foundation donating $4 million.

The Michigan Department of Health and Human Services and the Department of Environmental Quality today also committed an additional $3.5 million for water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

Flint city leaders requested the state's help to fund the reconnection after a Wednesday meeting of Flint's Technical Advisory Committee. Flint's move to the Great Lakes Water Authority is expected to cost about $1.3 million per month until the Karegnondi Water Authority is completed next summer.

"All Flint residents need clean, safe drinking water," Snyder said. "The technical experts helping the city on its water advisory all agree this move back to the Great Lakes Water Authority provides the best public health protection for children and families. This effort today is the result of people coming together to solve a problem. I appreciate Detroit's willingness to reconnect with Flint, the Mott Foundation's generous donation, and the dedication of all parties to come together to protect Flint families and children."

The move to Detroit water, which is drawn from Lake Huron, carries many public health benefits. As large bodies of water, the Great Lakes are naturally prone to fewer problems from large rain events and other runoff issues that can be present in shallower rivers. Additionally, the Great Lakes Water Authority has already fully optimized its corrosion control, using phosphates to help coat the insides of pipes and prevent lead from leaching into the water.

However, reconnecting with the authority will not completely resolve the city's problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control. Additionally, some

households in the city could experience lead in their drinking water until all lead pipes and plumbing are replaced.

To best protect public health, Snyder said state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead in water.

Free filters are available for current MDHHS clients at the 125 E. Union St. or 4809 Clio Road MDHHS office locations.

For residents who are not currently enrolled in MDHHS assistance programs, free filters are available at the Genesee County Community Action Resource Department offices at 2727 Lippincott and 601 North Saginaw in Flint. Staff will be at all four locations from 9 a.m. to 4 p.m., Monday through Friday, to distribute filters and assist residents who have questions about proper installation.

At the Lippincott location only, extended hours will be offered this weekend, including until 7 p.m. on Thursday and Friday and from 10 a.m. to 2 p.m. on Saturday.

Other good practices for residents concerned about lead include turning on the cold water tap and running the water until it's as cold as it will go. Additionally, only use cold water for cooking, drinking and especially mixing baby formula.

School test results released; more investigation planned

The state today also released the first results from its lead screening program in schools and homes. Of 37 total samples taken at 13 buildings, four samples spread over three buildings exceeded the federal action level of 15 parts per billion.

However, this sampling provides only an initial screen, and the state is committing to further testing water and inspecting plumbing at these schools. Until testing is complete, schools are advised to continue using bottled water and filtration as a precaution to protect children.

In addition, free testing is still available for any other Flint school, including daycares and Head Starts. Free testing is also available for any Flint resident.

Additional information, including more detailed lead screening results, is available at www.michigan.gov/flintwater.

###

Dave Murray
Deputy Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted] mobile
Twitter:@michigandmurray

<151008 Flint water release_V2.docx>

From: Wisniewski, Wendy (GOV)
Sent: Monday, October 12, 2015 2:13 PM
To: Agen, Jarrod (GOV)
Cc: Clement, Elizabeth (GOV)
Subject: RE: Flint next steps meeting

Jarrod - Before I reached out to Dan and Nick's offices I thought I'd see if there was a time that worked for a majority of our people. Along with your guys calendars, I can see Dick, Rich's and John Walsh's calendars and there is not a time where they are all available at the same time. So can you tell me which one or ones we can lose. Rich is out all day tomorrow and then flies to Nashville Wednesday night and is off on Thursday.

-----Original Message-----
From: Agen, Jarrod (GOV)
Sent: Monday, October 12, 2015 2:05 PM
To: Wisniewski, Wendy (GOV) <wisniewskiw@michigan.gov>
Cc: Clement, Elizabeth (GOV) <clemente@michigan.gov>
Subject: Flint next steps meeting

Wendy,

Can we arrange a meeting in next couple days to discuss next steps with Flint and the after action report for water testing.

Need to have Dennis, Beth, and me (or two of the three).

Rich
Dan Wyant
Nick Lyon
Harvey
Walsh
Wurfel/Murray
Redford
Dick

Thanks
Jarrod

From: Wurfel, Sara (GOV)
Sent: Tuesday, October 13, 2015 12:18 PM
To: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Hollins, Harvey (GOV); Baird, Richard (GOV)
Cc: Murray, David (GOV)
Subject: Fwd: MDP Statement: Those Responsible for Flint Water Crisis Must Be Held Accountable

Please see below.

We're going to address by noting that this move to was something that community had supported as well, that we know Darnell cares deeply about kids and the residents he serves, but that primarily we're focused on future and all the steps we are taking in collaboration with all parties to ensure that Flint has safe drinking water and we're protecting public health, and that we will be conducting a full after action review.

Let me know ASAP if anyone has any concerns with that or other tweaks/ideas, otherwise, that's what we're going with.

Thanks and best,
SW

Sent from my iPad

Begin forwarded message:

> **From:** Ronald Fonger <RFONGER1@mlive.com>
> **Date:** October 13, 2015 at 10:12:12 AM EDT
> **To:** "wurfels@michigan.gov" <wurfels@michigan.gov>
> **Subject: FW: MDP Statement: Those Responsible for Flint Water Crisis Must Be Held Accountable**
>
> Sara:
> Would your office want to comment on this call from state Dems for the governor to fire Darnell Earley from his position with the Detroit schools?
> Thanks,
>
> **Ron Fonger**
> MLive Media Group
> Reporter
>
> mobile [redacted]
> email rfonger1@mlive.com
> address 540 S. Saginaw St. #101, Flint MI 48502
>
> **From:** MDP Press [mailto:press@michigandems.com]
> **Sent:** Tuesday, October 13, 2015 8:52 AM

To: MDP Press
Subject: MDP Statement: Those Responsible for Flint Water Crisis Must Be Held Accountable

FOR IMMEDIATE RELEASE
News from the Michigan Democratic Party

October 13, 2015
Contact: Paul Kanan, 517.371.5410; pkanan@michigandems.com

MDP Statement: Those Responsible for Flint Water Crisis Must Be Held Accountable

LANSING – The Michigan Democratic Party issued the following statement today, on behalf of Party Chair Brandon Dillon, demanding those responsible for the Flint water crisis be held accountable and calling on Governor Snyder to immediately fire former Flint EM, and current EM for Detroit Public Schools, Darnell Earley:

"Accountability in government means answering to the people you serve, not just cleaning up your mistakes using their money," said Brandon Dillon, Chair of the Michigan Democratic Party.

"This catastrophe began with the governor's appointed emergency manager, and as much as Governor Snyder would like to pretend, this is not a matter of negotiating at the boardroom table. This is a situation where you pay for your mistakes and put those responsible on the chopping block.

"That is why we are calling for the immediate firing of the governor's handpicked emergency manager for Flint, Darnell Earley. Earley was in charge when the decision was made to switch the city to unsafe drinking water. If poisoning children wasn't bad enough, after Earley failed the citizens of Flint, the governor inexplicably rewarded him with another appointment – emergency manager for Detroit Public Schools – where he is now responsible for the education of nearly 50,000 students.

"The children of Flint and Detroit are being robbed of what most of us take for granted – safe drinking water and a quality education. The wholesale theft of our children's futures must end now. That begins with the removal from power all those that would sacrifice the future of a single child in Michigan – let alone thousands – in order to add a few extra dollars to the bottom line."

###

From: Muchmore, Dennis (GOV)
Sent: Tuesday, October 13, 2015 3:07 PM
To: Wurfel, Sara (GOV)
Cc: Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Hollins, Harvey (GOV); Baird, Richard (GOV); Murray, David (GOV)
Subject: Re: MDP Statement: Those Responsible for Flint Water Crisis Must Be Held Accountable

So, you don't want to say that the Governor doesn't believe he wants to execute his power under the constitution to remove the Mayor and Council of Flint, the Chair of the County Board of Commissioners and the Drain Commissioner since they ultimately brought this change to bear without proper understanding of the issues, and since they had previously approved the use of the Flint River to supplement the Genesee County system...I'm only being half facetious taking this tack...

On Oct 13, 2015, at 12:18 PM, Wurfel, Sara (GOV) <Wurfels@michigan.gov> wrote:

> Please see below.
>
> We're going to address by noting that this move to was something that community had supported as well, that we know Darnell cares deeply about kids and the residents he serves, but that primarily we're focused on future and all the steps we are taking in collaboration with all parties to ensure that Flint has safe drinking water and we're protecting public health, and that we will be conducting a full after action review.
>
> Let me know ASAP if anyone has any concerns with that or other tweaks/ideas, otherwise, that's what we're going with.
>
> Thanks and best,
> SW
>
> Sent from my iPad
>
> Begin forwarded message:
>
> > **From:** Ronald Fonger <RFONGER1@mlive.com>
> > **Date:** October 13, 2015 at 10:12:12 AM EDT
> > **To:** "wurfels@michigan.gov" <wurfels@michigan.gov>
> > **Subject: FW: MDP Statement: Those Responsible for Flint Water Crisis Must Be Held Accountable**
> >
> > Sara:
> > Would your office want to comment on this call from state Dems for the governor to fire Darnell Earley from his position with the Detroit schools?
> > Thanks,
> >
> > **Ron Fonger**
> > MLive Media Group
> > Reporter
> >
> > mobile [redacted]

email rfonger1@mlive.com
address 540 S. Saginaw St. #101, Flint MI 48502

From: MDP Press [mailto:press@michigandems.com]
Sent: Tuesday, October 13, 2015 8:52 AM
To: MDP Press
Subject: MDP Statement: Those Responsible for Flint Water Crisis Must Be Held Accountable

FOR IMMEDIATE RELEASE
News from the Michigan Democratic Party

October 13, 2015
Contact: Paul Kanan, 517.371.5410; pkanan@michigandems.com

MDP Statement: Those Responsible for Flint Water Crisis Must Be Held Accountable

LANSING – The Michigan Democratic Party issued the following statement today, on behalf of Party Chair Brandon Dillon, demanding those responsible for the Flint water crisis be held accountable and calling on Governor Snyder to immediately fire former Flint EM, and current EM for Detroit Public Schools, Darnell Earley:

"Accountability in government means answering to the people you serve, not just cleaning up your mistakes using their money," said Brandon Dillon, Chair of the Michigan Democratic Party.

"This catastrophe began with the governor's appointed emergency manager, and as much as Governor Snyder would like to pretend, this is not a matter of negotiating at the boardroom table. This is a situation where you pay for your mistakes and put those responsible on the chopping block.

"That is why we are calling for the immediate firing of the governor's handpicked emergency manager for Flint, Darnell Earley. Earley was in charge when the decision was made to switch the city to unsafe drinking water. If poisoning children wasn't bad enough, after Earley failed the citizens of Flint, the governor inexplicably rewarded him with another appointment – emergency manager for Detroit Public Schools – where he is now responsible for the education of nearly 50,000 students.

"The children of Flint and Detroit are being robbed of what most of us take for granted – safe drinking water and a quality education. The wholesale theft of our children's futures must end now. That begins with the removal from power all those that would sacrifice the future of a single child in Michigan – let alone thousands – in order to add a few extra dollars to the bottom line."

###

Governor Rick Snyder
November 6, 2015
Weekend Briefing

Contents	Page
[redacted]	
Signed Letters	
1. DEQ Susan Hedman USEPA Flint Water	52
[redacted]	

Redacted 2-51

STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

RICK SNYDER
GOVERNOR

BRIAN CALLEY
LT. GOVERNOR

November 6, 2015

Dr. Susan Hedman, Regional Administrator
United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard (R-19J)
Chicago, Illinois 60604-3507

Dear Dr. Hedman:

This letter is in follow up to a conference call on October 20, 2015 between the United States Environmental Protection Agency (USEPA), Region 5, and the Michigan Department of Environmental Quality (MDEQ). The purpose of that call was to discuss Region 5's Flint Safe Drinking Water Task Force (Task Force) that was established to provide the USEPA's technical expertise to the MDEQ and the city of Flint, Michigan.

During that call, it was requested that the State of Michigan provide the USEPA with an MDEQ point of contact for the Task Force. This letter is to inform you of the designation of Mr. Jim Sygo, Chief Deputy Director, MDEQ, as that point of contact. Mr. Sygo's contact information is below:

Michigan Department of Environmental Quality
P.O. Box 30473
Lansing, MI 48909-7973
sygoj@michigan.gov
517-284-6709

Thank you for your assistance in this matter as we work together to ensure a safe and reliable drinking water supply for the city of Flint.

Sincerely,

Rick Snyder
Governor

cc: Mr. Robert Kaplan, Deputy Regional Administrator, USEPA, Region 5
Mr. Dan Wyant, Director, MDEQ
Mr. Jim Sygo, Chief Deputy Director, MDEQ

From: Murray, David (GOV)
Sent: Friday, October 16, 2015 2:11 PM
To: Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Baird, Richard (GOV); Hollins, Harvey (GOV)
Cc: Wurfel, Sara (GOV); Wurfel, Brad (DEQ)
Subject: DEQ reaction to the US EPA announcement?
Attachments: Flint Press Release.pdf

Good afternoon,

Sara asked me to share with you the DEQ's planned reaction to the U.S. EPA's press release about the Flint water situation, which is attached. Please let us know if you think we are missing anything.

Dave

> Regarding the EPA announcement:
> "We are glad to have the continued technical support and counsel from our federal partners. We have been working closely with the U.S. EPA on the challenges in Flint, including its added presence on the city's technical advisory and the Governor's 10-point plan. This is welcome news and we anticipate it will help us implement the Governor's strategy."

United States Environmental Protection Agency | Region 5 77 West Jackson Blvd. Chicago, Illinois 60604 | Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

EPA **Environmental** NEWS RELEASE

Contact Information: Anne Rowan, rowan.anne@epa.gov 312-353-9391

For Immediate Release No. 15-OPA160

EPA Establishes Safe Drinking Water Task Force to Provide Technical Expertise to MDEQ and City of Flint

Task Force providing technical assistance on reconnecting the Flint drinking water system to a new source

CHICAGO (October 16, 2015) - Today U.S. Environmental Protection Agency Region 5 Administrator Susan Hedman established the Flint Safe Drinking Water Task Force to provide the Agency's technical expertise through regular conversations with designated officials from Michigan Department of Environmental Quality (MDEQ) and the City of Flint. The Task Force will be led by the Region 5 Deputy Regional Administrator and will assist with developing and implementing a plan to secure water quality, including measures to optimize corrosion control. Task Force members will be available to consult with MDEQ and the City of Flint on site in Flint. The Task Force will also coordinate as necessary with federal, state and local public health agencies to assist with protection of public health.

Specifically, the Task Force will provide technical assistance to the MDEQ and the City of Flint to reconnect the Flint system to a new source of drinking water (to be supplied by the Great Lakes Water Authority) and to optimize corrosion control for the Flint system, starting in October 2015. The Task Force will also provide technical assistance to the MDEQ and the City of Flint, as needed, in advance of and following connection of the Flint water system to a new source of drinking water (to be supplied by the Karegnondi Water Authority) and to optimize corrosion control for the Flint system, starting in 2016.

"EPA is committed to working with our state and local partners to ensure a safe and reliable drinking water supply for the residents of Flint, Michigan," Hedman said. "The formation of this task force continues our commitment to providing technical assistance to the City of Flint and the State of Michigan."

The Task Force will be comprised of scientists and technical experts from the EPA Region 5 office in Chicago, the National Risk Management Research Lab in Cincinnati and the EPA drinking water program. In addition, EPA will ask the Governor to designate a MDEQ official and the Mayor of Flint to designate a city official, to serve as points of contact for the Task Force.

From: Muchmore, Dennis (GOV)
Sent: Friday, October 16, 2015 4:32 PM
To: Wyant, Dan (DEQ); Lyon, Nick (DHHS); Hollins, Harvey (GOV)
Cc: Lasher, Geralyn (DHHS); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Wurfel, Sara (GOV); Murray, David (GOV)
Subject: FW: PRESS RELEASE: City of Flint Reconnects to Detroit Water
Attachments: CoF.DWSD.Agreement.2015.pdf

fyi

From: Jason Lorenz [mailto:jlorenz@cityofflint.com]
Sent: Friday, October 16, 2015 4:09 PM
Subject: PRESS RELEASE: City of Flint Reconnects to Detroit Water

For Immediate Release

City of Flint Reconnects to Detroit Water

Flint, Michigan – October 16, 2015 – Flint has reconnected to Detroit water. reached an agreement with the Detroit Water and Sewerage Department (DWSD) for the temporary provision of treated Lake Huron water to Flint. Work to establish the reconnection will begin immediately in a coordinated effort between the City of Flint, Genesee County and the DWSD.

A tremendous effort by all three partners, along with the efforts of the Governor and the State Legislature, ensured that this action occurred as quickly as possible. "The money from the state to begin fixing Flint water by reconnecting to Detroit is just a start – a down payment,´ said Mayor Dayne Walling. "I am not going to stop until every drop of drinking water in Flint is 100% safe."

Detroit water will be introduced into the Flint system throughout the evening. It is expected that the thorough replacement from Flint River water to Detroit water will happen after approximately three weeks. Residents in Flint may see discoloration as well as noticing some taste and odor issues during the transition.

Water provided by DWSD will contain corrosion control agents to hinder the leaching of lead from old pipes into the water; however, the City will also be adding additional corrosion control agents to further minimize the risk presented by lead pipes.

The contract between the City and DWSD calls for the provision of 12.5 million gallons per day (mgd) of treated water from Lake Huron at a cost of $1.1 million per month. DWSD Director Sue McCormick noted that the talks between Flint, DWSD and the GLWA Board were very cordial: "everyone acted in a spirt of cooperation in order to come to this agreement." Flint will purchase water from Detroit until the Karegnondi

Water Authority (KWA) pipeline can be completed in 2016. At that time, the KWA will become the primary water source for the City and the Flint River will remain as a backup system.

Residents with questions or concerns about the hydrant flushing in their area can call the Water Service Center at 810-766-7202. Continuing information on water will be provided via the City of Flint's website, cityofflint.com.

–END–

-Jason Lorenz
Public Information Officer
City of Flint
(810) 237-2039 (Office)
[redacted] (Cell)
jlorenz@cityofflint.com

Dayne Walling
Mayor

Natasha L. Henderson
City Administrator

Jason Lorenz
Public Information Officer
Office: (810) 237-2039
Cell: [redacted]
jlorenz@cityofflint.com

For Immediate Release

City of Flint Reconnects to Detroit Water

Flint, Michigan – October 16, 2015 – Flint has reconnected to Detroit water. reached an agreement with the Detroit Water and Sewerage Department (DWSD) for the temporary provision of treated Lake Huron water to Flint. Work to establish the reconnection will begin immediately in a coordinated effort between the City of Flint, Genesee County and the DWSD.

A tremendous effort by all three partners, along with the efforts of the Governor and the State Legislature, ensured that this action occurred as quickly as possible. "The money from the state to begin fixing Flint water by reconnecting to Detroit is just a start – a down payment,´ said Mayor Dayne Walling. "I am not going to stop until every drop of drinking water in Flint is 100% safe."

Detroit water will be introduced into the Flint system throughout the evening. It is expected that the thorough replacement from Flint River water to Detroit water will happen after approximately three weeks. Residents in Flint may see discoloration as well as noticing some taste and odor issues during the transition.

Water provided by DWSD will contain corrosion control agents to hinder the leaching of lead from old pipes into the water; however, the City will also be adding additional corrosion control agents to further minimize the risk presented by lead pipes.

–CONTINUE–

Dayne Walling
Mayor

Natasha L. Henderson
City Administrator

The contract between the City and DWSD calls for the provision of 12.5 million gallons per day (mgd) of treated water from Lake Huron at a cost of $1.1 million per month. DWSD Director Sue McCormick noted that the talks between Flint, DWSD and the GLWA Board were very cordial: "everyone acted in a spirt of cooperation in order to come to this agreement." Flint will purchase water from Detroit until the Karegnondi Water Authority (KWA) pipeline can be completed in 2016. At that time, the KWA will become the primary water source for the City and the Flint River will remain as a backup system.

Residents with questions or concerns about the hydrant flushing in their area can call the Water Service Center at 810-766-7202. Continuing information on water will be provided via the City of Flint's website, cityofflint.com.

–END–

From: Wurfel, Brad (DEQ)
Sent: Sunday, October 18, 2015 3:54 PM
To: Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Muchmore, Dennis (GOV)
Cc: Wyant, Dan (DEQ); Wurfel, Sara (GOV); Murray, David (GOV)
Subject: Detroit News Flint II
Attachments: Detroit News Flint II.docx

All,
Need your review of this document. It's our response to Detroit News story they're prepping for tomorrow.

Per Sara, Dan will call Jarrod shortly to discuss what we're proposing to do here.
Thanks,
b

Brad,

After reviewing the emails made available through FOIA, there are several things that seem to need addressing.

1. It appears DEQ staffers have essentially downplayed or ignored warning signs from EPA's water expert, Miguel Deltoral. We have been aware of Mr. Deltoral's unofficial memo that went public in April. But his email dated two months earlier on Feb. 27, to Jennifer Crooks and Mike Prysby, he seems to lay out exactly what's come to pass…

"(Particulate lead readings) Folks tend to discount these values as anomalies, but particulate lead release is a normal part of the corrosion process and it is universal (common) in all systems. It's just that it's not captured as often by the infrequent LCR sampling. If systems are pre-flushing the tap the night before collecting LCR compliance samples (MDEQ) still provides these instructions to public water systems) this clears particulate lead out of the plumbing and biases the results low by eliminating the highest lead values. If systems are pre-flushing and still finding particulate lead, the amount of particulate lead in the system can be higher than what is being detected using these "pre-flushed" first-draw samples.

"My point on that was that people are exposed to the particulate lead on a daily basis, but the particulate lead is being flushed away before collecting compliance samples which provides false assurance to residents about the true lead levels in the water."

Miguel goes on to address the optimal corrosion control situation in that same Feb 27 email.

"If I remember correctly, Detroit is feeding (phosphate) for the lead/copper rule, but since Flint is no longer part of that interconnection, I was wondering what their OCCT was. They are required to have OCCT in place which is why I was asking what they were using."

So what I'm seeing here is Miguel having raised these issues as far back as February. When unofficial April memo shows up, it's clear these issues still haven't been addressed.

Another email from the day before came from Jennifer Crooks at EPA which also highlights early concern about a lack of proper corrosion controls as well as the testing methods.
"The City can't just flush in advance of taking the compliance samples, they have to flush the lines on a regular basis."

Can you respond to the fact that it appears the state ignored or disregarded several warnings from EPA officials about testing deficiencies and insufficient corrosion controls?

Emails offer snapshots of a much broader conversation. The program staff did not ignore the information. They believed they were handling the situation in full accordance with federal protocols, and contacted EPA Region 5 officials promptly to seek guidance. They were more than halfway done with compliance sampling under the federal protocol and the 90th percentile samples to that point showed 6 pbb – barely in excess of the 5 pbb threshold.

2. Corrosion control, or the lack thereof, seems to be another major problem here. At the first of the recent press conferences, Dan Wyant said that lime was being used as a corrosion control method. But that is clearly contradicted by DEQ staff at several points. One of those is Pat Cook's email from April 24.
"Flint is currently not practicing corrosion control treatment at the (water treatment plant)."
This puts Dan's comments about the lime into question.
There's been some confusion on this point, and I think it was addressed in our previous response. This was a misunderstanding with technical staff. Lime was added to soften the water. While it adjusts pH and can have some impact on corrosivity, it was insufficient corrosion control.

3. I gather from several exchanges in here that EPA and DEQ disagree over that the state's responsibility was in ensuring there was optimal corrosion control. One of the emails from July includes notes from a meeting of all the parties shows that EPA was asking why that hadn't been used from the outset, and the state's response was something along these lines:

""MDEQ explained that they did not treat the switch to Flint River water as a "new system," but as a new source. It is their understanding that two rounds of 6-month testing is still needed to characterize the water quality. They don't know what optimized is until those two rounds of six month monitoring are completed."

Under the lead copper rule, was the state required to have phosphate treatment in place? It appears here that the state chose to interpret the CLR as not requiring corrosion control. That seems like a highly dubious conclusion.

And after concerns were raised repeatedly beginning (at least as early as February), why was nothing done?

What has become clear in recent weeks is that staff believed they were handling the situation in accordance with the proper protocol for a water provider using a new source, but the federal Lead and Copper rule has a particular provision for communities over 50,000 people; that the system operator must continue treating with full corrosion control even as they test the water.

What the staff did would have been the proper protocol for a community under 50,000 people. None of the DEQ staff in this division had ever worked on a water source switch for a community over 50,000 people – it's uncommon for our big communities to switch sources.

It's increasingly clear there was confusion here, but it also is increasingly clear that DEQ staff believed they were using the proper federal protocol and they were not.

The Governor will soon announce an independent, third party, after-action review to detail what happened and why, and offer steps to make sure Michigan's drinking water program is on a better course in the future.

4. Another area of concern, one I mentioned on the phone, is the pace of response. And I understand that the lead copper rule lays out response times. But you have concerns being raised about lead by an EPA expert as far back as February. The state's response, in several instances, is that federal guidelines give us two six-month periods to collect samples, and then more time to submit an action plan, and then a year or more to enact that plan.

   While those delays in making a change may be permitted under the law, given that we're talking about a possible public health crisis, why wasn't there more expediency? The responses in these

emails appear to be without any sense of urgency at a time when Flint residents may have been drinking dangerous water.

The results of two rounds of water testing showed the city needed to move to optimizing its corrosion control. That order was issued Aug. 17.

5. At many points along the way, serious concerns are made about the state's testing methods. The Virginia Tech results were not the first time someone had indicated state testing – as approved by federal guidelines – might not be giving accurate readings.

   Miguel's April memo reads: "I wanted to follow up on this because Flint has essentially not been using any corrosion control treatment since April 30, 2014 and they have (lead service lines). Given the very high lead levels found at one home and the pre-flushing happening in Flint, I'm worried that the whole town may have much higher lead levels than the compliance results indicated, since they are using pre-flushing ahead of their compliance sampling."

There is substantial controversy over the lead and copper rule – the EPA has been working for years on ways to update it, and Michigan will be an active part of that conversation going forward. The situation in Flint is a snapshot of an issue affecting cities around the state and the nation. More than a dozen states use the sampling protocol Michigan uses – that's not a defense of the protocol, but rather an indication that even experts on the issue disagree about the most effective testing methods.

What everyone can agree on is that lead is a serious issue. And I think everyone can agree that when the state came to recognize that there could be a health threat in the city, we took appropriate action. We are now engaged in an unprecedented effort to protect kids and families in Flint, develop more knowledge about what has happened and how people were affected, and take steps to make sure it doesn't happen again – in Michigan, or anywhere else.

All the people who brought this issue forward deserve credit for bringing it to us. Our actions reflected inexperience, and our public response to criticism was the wrong tone early in this conversation. But the best we can do with the situation going forward is represented in our present course – the Governor's plan represents all the suggestions outlined in the draft EPA memo, the Virginia Tech report, and the guidance we've gotten from EPA.

We will learn from this. We will make necessary changes to see to it that our program becomes a national leader in protection.

From: Muchmore, Dennis (GOV)
Sent: Tuesday, October 20, 2015 8:32 AM
To: Baird, Richard (GOV); Saxton, Thomas (Treasury); Khouri, Nick (TREASURY); Stanton, Terry A. (Treasury); Workman, Wayne (TREASURY); Wurfel, Sara (GOV); Murray, David (GOV); Agen, Jarrod (GOV); Clement, Elizabeth (GOV)
Subject: RE: Earley Flint Water OpEd-FOR REVIEW AND INPUT

I know that no one is going to want to do this, but I don't feel that it is unfair for Darnell to set the record straight. This should be a decision for the G, Jarrod and Dan, however, my guess is that Darnell is not going to quietly accept the abuse of the Flint people without having his voice heard.

From: Michelle Zdrodowski [mailto:michelle.zdrodowski@detroitk12.org]
Sent: Monday, October 19, 2015 5:13 PM
To: Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Paul Conners <connersp@michigan.gov>; Saxton, Thomas (Treasury) <SaxtonT@michigan.gov>; Khouri, Nick (TREASURY) <KhouriN@michigan.gov>; Stanton, Terry A. (Treasury) <StantonT@michigan.gov>; Workman, Wayne (TREASURY) <WorkmanW@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; haddenf@michigan.gov
Cc: Darnell Earley <darnell.earley@detroitk12.org>; Kelly Rossman-McKinney <krossman@truscottrossman.com>
Subject: Earley Flint Water OpEd-FOR REVIEW AND INPUT

All,

Darnell Earley asked that I send you the draft of an OpEd regarding the Flint Water issue that he would like to send to the media this week.

He is seeking your input before sending, and is looking for any feedback you might have by tomorrow afternoon. He has intentionally placed it on his EM letterhead as he is still acting in the capacity of an EM.

Thank you.

Michelle Z.

Michelle A. Zdrodowski

Executive Director of Communications
Detroit Public Schools
3011 W. Grand Boulevard, 14th Floor
Detroit, MI 48202
313.873.3238, office
[redacted] mobile

From: Murray, David (GOV)
Sent: Wednesday, October 21, 2015 7:50 AM
To: Agen, Jarrod (GOV)
Subject: Re: Dr. Lawrence Reynolds, Flint After Action

Will do!

Sent from my iPhone

On Oct 21, 2015, at 7:49 AM, Agen, Jarrod (GOV) <AgenJ@michigan.gov> wrote:

> We need to add him to press release.
> Can one of you do first thing this morning.
>
> Begin forwarded message:
>
> **From:** "Snyder, Rick (GOV)" <[redacted]>
> **Date:** October 20, 2015 at 7:42:28 PM EDT
> **To:** "Calley, Brian (GOV)" <[redacted]>
> **Cc:** "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Scott, Allison (GOV)" <scotta12@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>
> **Subject: Re: Dr. Lawrence Reynolds, Flint After Action**
>
> Sounds like a great addition.
>
> Thanks
> Rick
>
> > On Oct 20, 2015, at 6:19 PM, Calley, Brian (GOV) <[redacted]> wrote:
> >
> > I really like that option.
> >
> > On Oct 20, 2015, at 5:55 PM, Agen, Jarrod (GOV) <AgenJ@michigan.gov> wrote:
> >
> > > Rich connected with Dr. Lawrence Reynolds from Flint to join our After Action team.
> > > He's been a long time pediatrician in Flint. Well respected in the community.
> > > He was affiliated with Mott Children Health Center for several years, but is listed as affiliated with Hurley now.
> > > His background looks excellent. He is able to join via phone tomorrow morning.
> > > Let me know if any concerns.
> > > He was suggested by Harvey and vetted by Rich.

Old bio from 2012 here:
https://cfgf.org/cfgf/tabId/394/itemId/222/Dr-Lawrence-Reynolds-Honored-by-CFGF.aspx

Current Listing:
http://health.usnews.com/doctors/lawrence-reynolds-455776

From: Murray, David (GOV)
Sent: Wednesday, October 21, 2015 8:32 AM
To: Agen, Jarrod (GOV)
Subject: RE: Dr. Lawrence Reynolds, Flint After Action

Will do. 10 enough?

From: Agen, Jarrod (GOV)
Sent: Wednesday, October 21, 2015 8:31 AM
To: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: Re: Dr. Lawrence Reynolds, Flint After Action

bring copies of release to the 9am

On Oct 21, 2015, at 7:50 AM, Murray, David (GOV) <MurrayD1@michigan.gov> wrote:

> Will do!
>
> Sent from my iPhone
>
> On Oct 21, 2015, at 7:49 AM, Agen, Jarrod (GOV) <AgenJ@michigan.gov> wrote:
>
> > We need to add him to press release.
> > Can one of you do first thing this morning.
> >
> > Begin forwarded message:
> >
> > **From:** "Snyder, Rick (GOV)" <[redacted]
> > **Date:** October 20, 2015 at 7:42:28 PM EDT
> > **To:** "Calley, Brian (GOV)" <[redacted]
> > **Cc:** "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Scott, Allison (GOV)" <scotta12@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>
> > **Subject: Re: Dr. Lawrence Reynolds, Flint After Action**
> >
> > Sounds like a great addition.
> >
> > Thanks
> > Rick
> >
> > > On Oct 20, 2015, at 6:19 PM, Calley, Brian (GOV) <[redacted]> wrote:
> > >
> > > I really like that option.

On Oct 20, 2015, at 5:55 PM, Agen, Jarrod (GOV) <AgenJ@michigan.gov> wrote:

> Rich connected with Dr. Lawrence Reynolds from Flint to join our After Action team.
> He's been a long time pediatrician in Flint. Well respected in the community.
> He was affiliated with Mott Children Health Center for several years, but is listed as affiliated with Hurley now.
> His background looks excellent. He is able to join via phone tomorrow morning.
> Let me know if any concerns.
> He was suggested by Harvey and vetted by Rich.
>
> Old bio from 2012 here:
> https://cfgf.org/cfgf/tabId/394/itemId/222/Dr-Lawrence-Reynolds-Honored-by-CFGF.aspx
>
> Current Listing:
> http://health.usnews.com/doctors/lawrence-reynolds-455776

From: Murray, David (GOV)
Sent: Wednesday, October 21, 2015 8:35 AM
To: Agen, Jarrod (GOV)
Subject: RE: Dr. Lawrence Reynolds, Flint After Action

Is this the actual name of the group?

Flint Water After Action Report Commission

From: Agen, Jarrod (GOV)
Sent: Wednesday, October 21, 2015 8:32 AM
To: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: Re: Dr. Lawrence Reynolds, Flint After Action

sure

On Oct 21, 2015, at 8:31 AM, Murray, David (GOV) <MurrayD1@michigan.gov> wrote:

> Will do. 10 enough?
>
> **From:** Agen, Jarrod (GOV)
> **Sent:** Wednesday, October 21, 2015 8:31 AM
> **To:** Murray, David (GOV) <MurrayD1@michigan.gov>
> **Subject:** Re: Dr. Lawrence Reynolds, Flint After Action
>
> bring copies of release to the 9am
>
> On Oct 21, 2015, at 7:50 AM, Murray, David (GOV) <MurrayD1@michigan.gov> wrote:
>
> > Will do!
> >
> > Sent from my iPhone
> >
> > On Oct 21, 2015, at 7:49 AM, Agen, Jarrod (GOV) <AgenJ@michigan.gov> wrote:
> >
> > > We need to add him to press release.
> > > Can one of you do first thing this morning.
> > >
> > > Begin forwarded message:
> > >
> > > **From:** "Snyder, Rick (GOV)"
> > > <[redacted]>

Date: October 20, 2015 at 7:42:28 PM EDT
To: "Calley, Brian (GOV)"
<[redacted]
Cc: "Agen, Jarrod (GOV)"
<AgenJ@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Scott, Allison (GOV)" <scotta12@michigan.gov>, "Muchmore, Dennis (GOV)"
<muchmored@michigan.gov>
Subject: Re: Dr. Lawrence Reynolds, Flint After Action

Sounds like a great addition.

Thanks
Rick

> On Oct 20, 2015, at 6:19 PM, Calley, Brian (GOV)
> <[redacted]> wrote:
>
> I really like that option.
>
> On Oct 20, 2015, at 5:55 PM, Agen, Jarrod (GOV) <AgenJ@michigan.gov> wrote:
>
> > Rich connected with Dr. Lawrence Reynolds from Flint to join our After Action team.
> > He's been a long time pediatrician in Flint. Well respected in the community.
> > He was affiliated with Mott Children Health Center for several years, but is listed as affiliated with Hurley now.
> > His background looks excellent. He is able to join via phone tomorrow morning.
> > Let me know if any concerns.
> > He was suggested by Harvey and vetted by Rich.
> >
> > Old bio from 2012 here: https://cfgf.org/cfgf/tabid/394/itemId/222/Dr-

Lawrence-Reynolds-Honored-by-CFGF.aspx

Current Listing:
http://health.usnews.com/doctors/lawrence-reynolds-455776

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 9:35 AM
To: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Baird, Richard (GOV); Hollins, Harvey (GOV)
Cc: Murray, David (GOV)
Subject: FW: state money for detroit water

Importance: High

Please see below.

No good deed goes unpunished. This looks like may be next big issue.

I thought GLWA-DWSD was NOT going to require the entire sum all up front?

From: Ronald Fonger [mailto:RFONGER1@mlive.com]
Sent: Thursday, October 22, 2015 9:28 AM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>
Subject: state money for detroit water

Sara:
I was at a City Council meeting last night when Flint City Administrator Natasha Henderson said the state has only wired Flint $2 million of the $6 million approved by the state Legislature.
She said the city has been told it will receive an additional $2 million in January and another $2 million in April.
Henderson said she's asked that the money be sent immediately because the city was required to pay Detroit the entire $12 million upfront, before the water was reconnected, and its water and sewer fund balance has dropped significantly as a result.
Several council members also spoke about this, and Council President Josh Freeman called the payment plant "beyond ridiculous" given the city's financial position.
Is there someone who can talk to us about this?
Thanks,

Ron Fonger
MLive Media Group
Reporter

mobile [redacted]
email rfonger1@mlive.com
address 540 S. Saginaw St. #101, Flint MI 48502

From: Baird, Richard (GOV)
Sent: Thursday, October 22, 2015 9:43 AM
To: Wurfel, Sara (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Hollins, Harvey (GOV)
Cc: Murray, David (GOV)
Subject: RE: state money for detroit water

The deal was monthly payments. I will get into this as quick as I can but I am sure she has it wrong or someone in DWSD is befuddled.

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 9:35 AM
To: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Baird, Richard (GOV); Hollins, Harvey (GOV)
Cc: Murray, David (GOV)
Subject: FW: state money for detroit water
Importance: High

Please see below.

No good deed goes unpunished. This looks like may be next big issue.

I thought GLWA-DWSD was NOT going to require the entire sum all up front?

From: Ronald Fonger [mailto:RFONGER1@mlive.com]
Sent: Thursday, October 22, 2015 9:28 AM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>
Subject: state money for detroit water

Sara:
I was at a City Council meeting last night when Flint City Administrator Natasha Henderson said the state has only wired Flint $2 million of the $6 million approved by the state Legislature.
She said the city has been told it will receive an additional $2 million in January and another $2 million in April.
Henderson said she's asked that the money be sent immediately because the city was required to pay Detroit the entire $12 million upfront, before the water was reconnected, and its water and sewer fund balance has dropped significantly as a result.
Several council members also spoke about this, and Council President Josh Freeman called the payment plant "beyond ridiculous" given the city's financial position.
Is there someone who can talk to us about this?
Thanks,

Ron Fonger
MLive Media Group
Reporter

mobile [redacted]
email rfonger1@mlive.com
address 540 S. Saginaw St. #101, Flint MI 48502

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 9:55 AM
To: Muchmore, Dennis (GOV)
Subject: RE: state money for detroit water

I can – but I need to have the facts and details first. This whole issue is one that we cannot afford to be wrong on.

From: Muchmore, Dennis (GOV)
Sent: Thursday, October 22, 2015 9:47 AM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>
Subject: RE: state money for detroit water

Push back hard on this. Natasha Henderson is becoming a liability.

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 9:35 AM
To: Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Cc: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: FW: state money for detroit water
Importance: High

Please see below.

No good deed goes unpunished. This looks like may be next big issue.

I thought GLWA-DWSD was NOT going to require the entire sum all up front?

From: Ronald Fonger [mailto:RFONGER1@mlive.com]
Sent: Thursday, October 22, 2015 9:28 AM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>
Subject: state money for detroit water

Sara:
I was at a City Council meeting last night when Flint City Administrator Natasha Henderson said the state has only wired Flint $2 million of the $6 million approved by the state Legislature.
She said the city has been told it will receive an additional $2 million in January and another $2 million in April.
Henderson said she's asked that the money be sent immediately because the city was required to pay Detroit the entire $12 million upfront, before the water was reconnected, and its water and sewer fund balance has dropped significantly as a result.
Several council members also spoke about this, and Council President Josh Freeman called the payment plant "beyond ridiculous" given the city's financial position.
Is there someone who can talk to us about this?
Thanks,

Ron Fonger
MLive Media Group
Reporter

mobile [redacted]
email rfonger1@mlive.com
address 540 S. Saginaw St. #101, Flint MI 48502

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 9:58 AM
To: Baird, Richard (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Hollins, Harvey (GOV)
Cc: Murray, David (GOV)
Subject: RE: state money for detroit water

Thanks much -- that was the last I had knew and understood too about how was supposed to work.

Just trying to either correct and nip in bud ASAP before this gets out of hand.

But also imperative that we have facts first.

p.s.
Have also talked with Treasury and SBO teams and they're looking into from their respective ends as well.

From: Baird, Richard (GOV)
Sent: Thursday, October 22, 2015 9:43 AM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Cc: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: RE: state money for detroit water

The deal was monthly payments. I will get into this as quick as I can but I am sure she has it wrong or someone in DWSD is befuddled.

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 9:35 AM
To: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Baird, Richard (GOV); Hollins, Harvey (GOV)
Cc: Murray, David (GOV)
Subject: FW: state money for detroit water
Importance: High

Please see below.

No good deed goes unpunished. This looks like may be next big issue.

I thought GLWA-DWSD was NOT going to require the entire sum all up front?

From: Ronald Fonger [mailto:RFONGER1@mlive.com]
Sent: Thursday, October 22, 2015 9:28 AM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>
Subject: state money for detroit water

Sara:
I was at a City Council meeting last night when Flint City Administrator Natasha Henderson said the state has only wired Flint $2 million of the $6 million approved by the state Legislature.
She said the city has been told it will receive an additional $2 million in January and another $2 million in April.
Henderson said she's asked that the money be sent immediately because the city was required to pay Detroit the entire $12 million upfront, before the water was reconnected, and its water and sewer fund balance has dropped significantly as a result.
Several council members also spoke about this, and Council President Josh Freeman called the payment plant "beyond ridiculous" given the city's financial position.
Is there someone who can talk to us about this?
Thanks,

Ron Fonger
MLive Media Group
Reporter

mobile [redacted]
email rfonger1@mlive.com
address 540 S. Saginaw St. #101, Flint MI 48502

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 12:16 PM
To: Baird, Richard (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Hollins, Harvey (GOV)
Cc: Murray, David (GOV)
Subject: RE: state money for detroit water

Importance: High

So sounds like based on conf call that was just had, that for some reason the city did indeed agree to all up front.

Clearly don't want to throw city under the bus as that's certainly not going help situation, but since having them do that to us as has already started, please see below bullets. Fact based and shows state's immediate action to again help address. Work? Any concerns or changes?

- The initial agreement and understanding was for monthly payments.
- Unbeknownst to the state, the city entered into an arrangement for one upfront sum and payment.
- Now that we are aware of this and have confirmed that final arrangement, the state is taking steps to immediately wire the money to the city. They should have all of the state funds within a business day or two.

Please weigh in ASAP.

Thanks much,
SW

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 9:58 AM
To: Baird, Richard (GOV) <bairdr@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Cc: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: RE: state money for detroit water

Thanks much – that was the last I had knew and understood too about how was supposed to work.

Just trying to either correct and nip in bud ASAP before this gets out of hand.

But also imperative that we have facts first.

p.s.
Have also talked with Treasury and SBO teams and they're looking into from their respective ends as well.

From: Baird, Richard (GOV)
Sent: Thursday, October 22, 2015 9:43 AM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>

Cc: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: RE: state money for detroit water

The deal was monthly payments. I will get into this as quick as I can but I am sure she has it wrong or someone in DWSD is befuddled.

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 9:35 AM
To: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Baird, Richard (GOV); Hollins, Harvey (GOV)
Cc: Murray, David (GOV)
Subject: FW: state money for detroit water
Importance: High

Please see below.

No good deed goes unpunished. This looks like may be next big issue.

I thought GLWA-DWSD was NOT going to require the entire sum all up front?

From: Ronald Fonger [mailto:RFONGER1@mlive.com]
Sent: Thursday, October 22, 2015 9:28 AM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>
Subject: state money for detroit water

Sara:
I was at a City Council meeting last night when Flint City Administrator Natasha Henderson said the state has only wired Flint $2 million of the $6 million approved by the state Legislature.
She said the city has been told it will receive an additional $2 million in January and another $2 million in April.
Henderson said she's asked that the money be sent immediately because the city was required to pay Detroit the entire $12 million upfront, before the water was reconnected, and its water and sewer fund balance has dropped significantly as a result.
Several council members also spoke about this, and Council President Josh Freeman called the payment plant "beyond ridiculous" given the city's financial position.
Is there someone who can talk to us about this?
Thanks,

Ron Fonger
MLive Media Group
Reporter

mobile [redacted]
email rfonger1@mlive.com
address 540 S. Saginaw St. #101, Flint MI 48502

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 12:33 PM
To: Agen, Jarrod (GOV); Baird, Richard (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV)
Cc: Murray, David (GOV)
Subject: RE: state money for detroit water

That's a great point and change.

From: Agen, Jarrod (GOV)
Sent: Thursday, October 22, 2015 12:30 PM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Cc: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: RE: state money for detroit water

Overall it works for me.
Although, just add some urgency/compassion.

- We want to ensure that there are no complications or interruptions in Flint residents receiving water from GWLA, so we are taking steps immediately wire the money to the city. They should have all of the state funds within a business day or two.

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 12:16 PM
To: Baird, Richard (GOV) <bairdr@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Cc: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: RE: state money for detroit water
Importance: High

So sounds like based on conf call that was just had, that for some reason the city did indeed agree to all up front.

Clearly don't want to throw city under the bus as that's certainly not going help situation, but since having them do that to us as has already started, please see below bullets. Fact based and shows state's immediate action to again help address. Work? Any concerns or changes?

- The initial agreement and understanding was for monthly payments.
- Unbeknownst to the state, the city entered into an arrangement for one upfront sum and payment.
- Now that we are aware of this and have confirmed that final arrangement, the state is taking steps to immediately wire the money to the city. They should have all of the state funds within a business day or two.

Please weigh in ASAP.

Thanks much,
SW

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 9:58 AM
To: Baird, Richard (GOV) <bairdr@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Cc: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: RE: state money for detroit water

Thanks much -- that was the last I had knew and understood too about how was supposed to work.

Just trying to either correct and nip in bud ASAP before this gets out of hand.

But also imperative that we have facts first.

p.s.
Have also talked with Treasury and SBO teams and they're looking into from their respective ends as well.

From: Baird, Richard (GOV)
Sent: Thursday, October 22, 2015 9:43 AM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Cc: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: RE: state money for detroit water

The deal was monthly payments. I will get into this as quick as I can but I am sure she has it wrong or someone in DWSD is befuddled.

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 9:35 AM
To: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Baird, Richard (GOV); Hollins, Harvey (GOV)
Cc: Murray, David (GOV)
Subject: FW: state money for detroit water
Importance: High

Please see below.

No good deed goes unpunished. This looks like may be next big issue.

I thought GLWA-DWSD was NOT going to require the entire sum all up front?

From: Ronald Fonger [mailto:RFONGER1@mlive.com]
Sent: Thursday, October 22, 2015 9:28 AM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>
Subject: state money for detroit water

Sara:
I was at a City Council meeting last night when Flint City Administrator Natasha Henderson said the state has only wired Flint $2 million of the $6 million approved by the state Legislature.
She said the city has been told it will receive an additional $2 million in January and another $2 million in April.
Henderson said she's asked that the money be sent immediately because the city was required to pay Detroit the entire $12 million upfront, before the water was reconnected, and its water and sewer fund balance has dropped significantly as a result.
Several council members also spoke about this, and Council President Josh Freeman called the payment plant "beyond ridiculous" given the city's financial position.
Is there someone who can talk to us about this?
Thanks,

Ron Fonger
MLive Media Group
Reporter

mobile [redacted]
email rfonger1@mlive.com
address 540 S. Saginaw St. #101, Flint MI 48502

From: Scott, Allison (GOV)
Sent: Wednesday, October 28, 2015 3:08 PM
To: Agen, Jarrod (GOV); Clement, Elizabeth (GOV)
Subject: FW: Flint water

Thoughts?

From: Muchmore, Dennis (GOV)
Sent: Thursday, October 22, 2015 9:34 AM
To: Snyder, Rick (GOV) <[redacted]>
Cc: Scott, Allison (GOV) <scotta12@michigan.gov>
Subject: Flint water

Ananich wants you to add Carl Levin to the task force on Flint Water. You might want to consider that. Carl isn't going to go to every meeting, he's a pretty fair individual with a long relationship with Sikkema and Kolb, and, Ananich can hardly balk at the findings if Carl is inside the tent.

From: Workman, Wayne (TREASURY)
Sent: Tuesday, November 10, 2015 5:01 PM
To: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Hollins, Harvey (GOV)
Cc: Saxton, Thomas (Treasury)
Subject: FW: Article
Attachments: American City and County.pdf

FYI, We had a productive first meeting with Mayor Weaver of Flint today. We hear lots of second hand rumors but are proceeding to aggressively assist the City and Mayor with this transition. Let me know if you would like any more information.
Wayne L. Workman
Deputy State Treasurer
Michigan Department of Treasury

From: Workman, Wayne (TREASURY)
Sent: Tuesday, November 10, 2015 4:52 PM
To: 'kweaver@cityofflint.com' <kweaver@cityofflint.com>
Cc: Byrne, Randall (Treasury) <ByrneR1@michigan.gov>
Subject: FW: Article

Mayor Weaver, Thank you again for coming to Lansing for our meeting. It was very good to welcome you and begin what will be a productive working relationship. Attached is the article on water in the US I mentioned. I expect we will be talking early next week. In the meantime, please do not hesitate to call me. Thank you, Wayne

Wayne L. Workman
Deputy State Treasurer
Michigan Department of Treasury

From: Saxton, Thomas (Treasury)
Sent: Tuesday, November 10, 2015 11:11 AM
To: Workman, Wayne (TREASURY) <WorkmanW@michigan.gov>
Cc: Byrne, Randall (Treasury) <ByrneR1@michigan.gov>; Sampson, Jeremy (TREASURY) <SampsonJ@michigan.gov>
Subject: FW: Article

From: Pleyte, Beth (Treasury)
Sent: Monday, November 09, 2015 4:27 PM
To: Saxton, Thomas (Treasury) <SaxtonT@michigan.gov>
Subject: Article

Beth Pleyte
Executive Assistant to
Tom Saxton, Chief Deputy Treasurer

430 West Allegan St.
Lansing, MI 48922
[redacted]Direct
517-373-3223 Office

Snow and ice removal practices from across the country

WASTEWATER TOURISM
Milwaukee wastewater plant becomes unlikely tourist attraction

AMERICAN CITY&COUNTY®

Serving government leaders since 1909

October 2015

Dark Water Rising

Fixing America's broken water infrastructure systems

Powered by Penton

GPN: Products at Work

#0XHP1CE ********FIRM**CAR-RT LOT**D-150
#4938900168 6# AC 004 100
DC4 ACC 1 0CT15 0001 #215 #23727
TOM SMITON - CHIEF DEPUTY
TRERSURY DEPT
430 N ALLEGAN ST
LANSING MI 48933-1592

Water Rising

Fixing America's broken water infrastructure systems

By Derek Prall

Buried underneath America's homes, businesses and schools there's a problem steadily growing. It threatens our economy, our safety and our way of life. The problem is mounting, there are few actively working to solve it, and in many cases, we don't know where it is until something goes wrong.

There are nearly 170,000 public drinking water systems, 14,780 wastewater treatment facilities and 19,740 wastewater pipe systems crisscrossing the American landscape. However, this infrastructure is aging, deteriorating, crumbling – and if immediate action isn't taken, the results could be catastrophic.

The American Society of Civil Engineers (ASCE) in its most recent Report Card for America's Infrastructure gave both the country's drinking and wastewater infrastructure a grade of D. The organization estimates that it will take nearly $300 billion in capital investment over the next 20 years to get waste and stormwater systems up to date, while the cost of replacing every drinking water pipe past its useful life in this country could well exceed $1 trillion.

THE RISING WATERS

Water infrastructure is a huge collective term, and refers to everything from underground water mains to wastewater treatment plants and everything in between; however, Greg DiLoreto, former ASCE president, says, generally speaking, the biggest budgetary shortfall is in maintaining the country's underground network of pipes, many of which are over a century old or more. Washington D.C.'s system, for example, was installed shortly after the Civil War, he says.

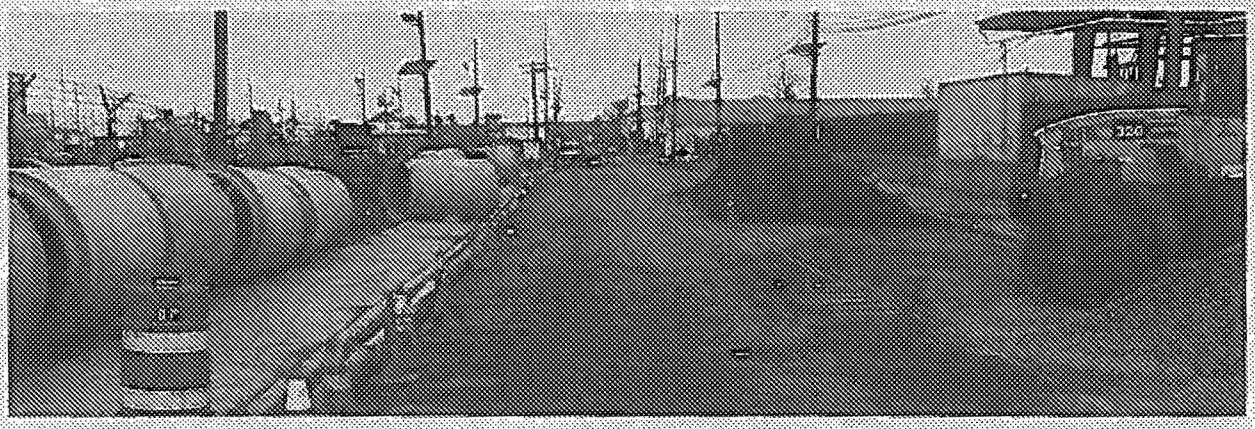
"There are an estimated 240,000 water main breaks per year here in the United States," DiLoreto says, adding, "quite frankly, there's not enough revenue to do what needs to be done to bring that drinking water infrastructure to a grade of B, which would be good condition."

And this isn't a new problem. Investment in America's water infrastructure has lagged for decades. "We had a great boom in the post-war era of building up our infrastructure," says Tracy Mehan, executive director of governmental affairs at the American Water Works Association. "But we've not continued investing in it to maintain it."

If these systems are not maintained, it could result in catastrophic consequences. Costly and wasteful main breaks will become the norm, and the reliability of our nation's water supply will quickly deteriorate. Experts agree that not addressing the problem would spell disaster for the economy and way of life. So, why then is little being done to solve the problem?

One contributing factor is that water in America is unrealistically inexpensive. By and large, the revenue governments receive from water services is from the rate payers; however, they only pay half of what most pay for water in developed countries in Europe, says Mehan. And DiLoreto agrees. Water is incredibly cheap when compared to any other service that comes into the average American home, such as cable TV, broadband Internet or cellphone service.

Consumers tend to take their water for granted, Mehan says. He argues that this may be because of an attitude most Americans have regarding water – they view it as a right, rather than a service, he says. "At the end of the day, someone has to pay for the distribution systems, the treatment works, and all the other things that make water potable," he says. Citizens lose sight of the fact that water isn't a simple commodity. "What we're selling, if you can



use that term," he adds, "is a very sophisticated, highly engineered capital-intensive service."

The question, Mehan says, comes down to who will end up paying for it. "More and more, we're going to be looking to rate payers to shoulder the responsibility, which will, of course, be controversial and will also raise some serious questions about affordability," he says. "Rates will continue to go up."

Which leads to a major issue. It is, of course, politically unpopular to raise rates. "Politics has something to do with it," Mehan explains, "and I don't mean politics in the partisan sense." Most water systems are municipally based, and he explains that going to a mayor or council to talk about potential rate hikes can be a fraught conversation, and not always purely a business decision. "The electoral cycle sometimes intrudes into these decisions and can create barriers," he says.

The second issue is more tangible. DiLoreto adds that visibility is a major contributing factor. "Unfortunately, until it breaks, we as consumers don't really think about it," he says. "We turn on the tap and water comes out, clean to drink, in every faucet in our house. We just don't think about it until we get a notice from the utility that says the water system will be down because we have a broken pipe."

THE CAVALRY ISN'T COMING

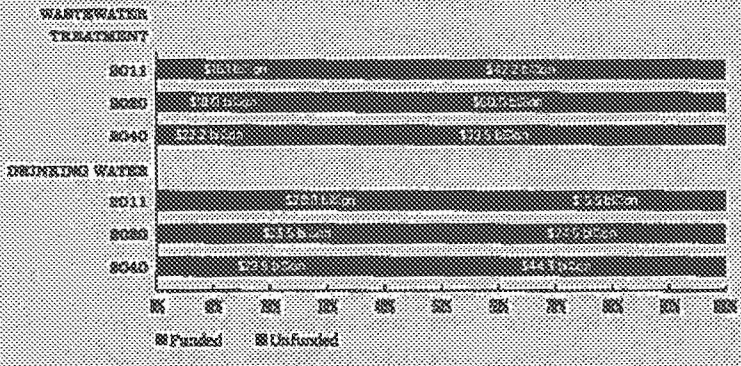
One of the first ways proactive communities can work to make their water systems more reliable is by adopting a meaningful asset management program, DiLoreto says. Intimately understanding the system, knowing where problems may occur and engaging in regularly scheduled preventative maintenance can greatly reduce risks, he says. "Instead of waiting until the pipe breaks, maybe we get in there sooner." New technologies and computerized asset management systems, he says, have made this process more efficient.

Another, less tangible way of addressing the issue, is through policy.

In 2014, about $137 billion in public funds was spent on water infrastructure and resources, says Joseph Kane, a senior policy analyst for The Brookings Institution, citing a study released by the Congressional Budget Office (CBO). And while some of this is made up of federal dollars, about 75 percent comes from state and local governments.

Because of this, Kane says, these public entities that are struggling to simply maintain their water systems must be smarter and more tactical

Expected Wastewater Treatment and Drinking Water Infrastructure Needs and Investments in the U.S., 2011, 2020 and 2040



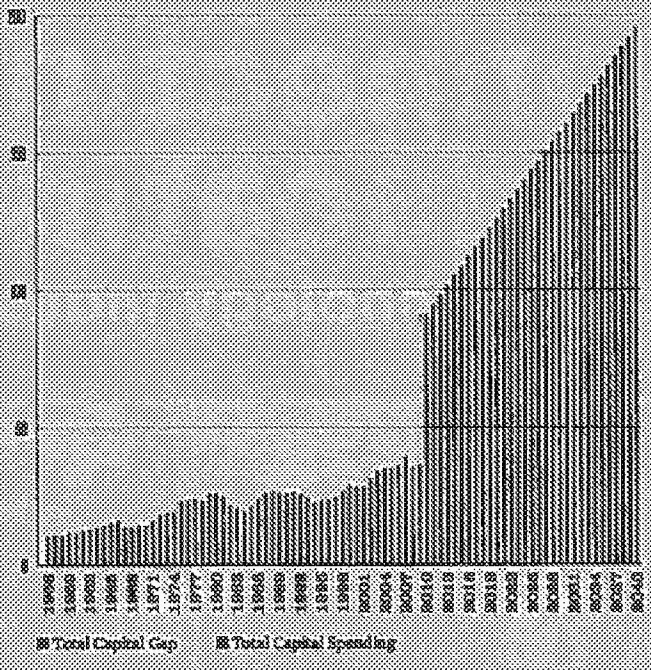
[illegible] Needs calculated from EPA (1978, 1995, 2000, 2003, 2005, 2006, 2008, 2012). Spending calculated from CBO (2002) and USCB (2011a, 2011b). Consumer price index adjustments from BLS (2015). Projections by Bipartisan Strategies and EDR Group.

Typical Useful Lives of Wastewater System Components

TREATMENT	USEFUL LIFE (YEARS)
Collections	80–100
Treatment plants—concrete structures	50
Treatment plants—mechanical and electrical	15–25
Force mains	25
Pumping stations—concrete structures	50
Pumping stations-mechanical and electrical	15
Interceptors	80–100

SOURCES: (2002, table 2-3).

Overall Capital Investment Gap for U.S. Water Infrastructure, 1950-2040



Needs calculated from EPA (1978, 1997b, 2001, 2002, 2005, 2010a, 2009, 2010). Spending calculated from CBO (2010) and USACE (2010a, 2012b). Consumer price index adjustment from BLS (2013). Projections by Downstream Strategies and EDR Group.

in the way they spend money.

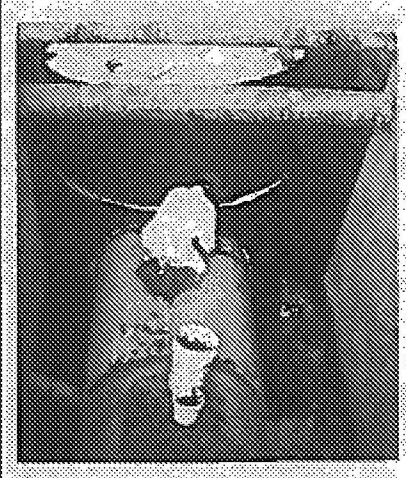
"I think a lot of people are looking for these top-level, silver bullet solutions from the top down – [thinking] the federal government is going to lead, and they're going to prescribe these huge stimulus-style packages to solve the challenge," Kane says. "I think if anything has become evident over the past few years... is that a lot of states and localities realize they're on their own."

The cavalry, so to speak, isn't coming to save the day, Kane says. States and local governments need to face the problem head on, and in order to do that, they must think outside traditional boxes.

One way to do this is through regulating efficiencies, Kane says. Industry- and household-level changes in technology can make a water system more efficient and resilient, while changes in irrigation and landscaping techniques can reduce strain on the system. He also says looking to the private sector is becoming increasingly popular.

"It's kind of this all-hands-on-deck strategy that's coming from the bottom up," Kane says. "It's not just publicly led and driven, but it's increasingly done in partnership with private sector players."

However, local governments need to start rethinking the way they go about establishing these

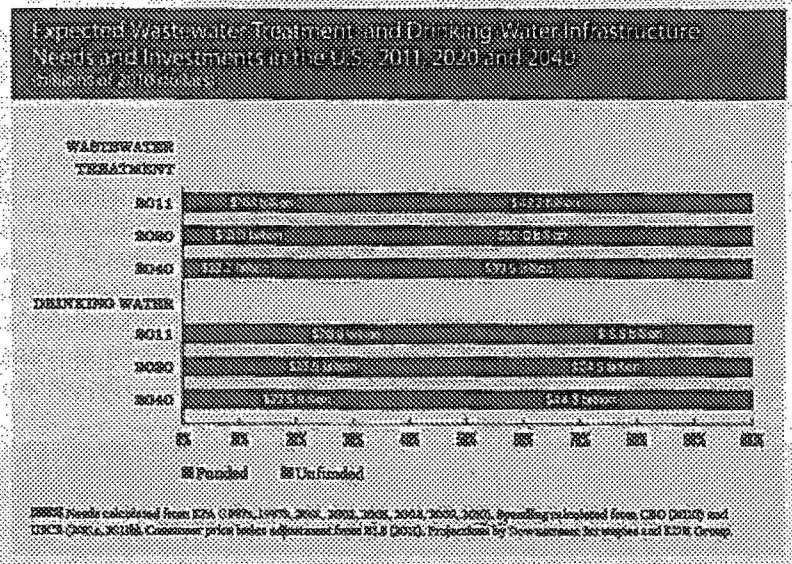


A public works official working on a water main in Elizabeth, N.J.

public private partnerships. According to a Brookings Institution report, in many cases the procurement process that guides the way governments plan and finance infrastructure projects is in a greater state of disrepair than the assets themselves.

Procurement policy reform will be important in ensuring successful and efficient delivery of infrastructure projects, says Kane. Today's procurement systems were developed for a less connected, slower-paced world. Outdated laws, burdensome regulatory frameworks, poor communication and lack of universal practices hinder growth and hobble progress. Visionary leadership, a talented pool of private and public sector professionals, standardization between agencies and increased collaboration will make a local government's public private partnerships more effective.

But how should infrastructure projects be selected? Elizabeth Schilling, deputy director of policy development and implementation for Smart Growth America, says a "Fix it First" mentality should be at the forefront of civic leaders' minds.



All figures via the American Society of Civil Engineers' Failure to Act report

Schilling says that part of Smart Growth America's advocacy, particularly as it pertains to water infrastructure, has centered on State Revolving Loan Funds, or a fund administered by a state government to provide low-interest loans for investments in water and sanitation infrastructure. Projects must meet certain criteria for these loans, and developing these criteria in a smart, sustainable way is important to the

The majority of the infrastructure in Elizabeth is over a century old. Maintaining the system has been a challenge for the city.

future of America's water infrastructure, she says.

One of the biggest issues is that there are lots of programs available geared toward helping communities expand, Schilling says. "There are fewer programs that help communities pay for [this expansion] afterwards. A lot of our infrastructure policies are sort of post WWII, trying to help communities keep up with the pace of suburbanization."

The problem, she says, is that it was expected the growth would end up paying for the costs of maintenance on these rapidly expanding systems. In reality, though, that hasn't been the case. "We haven't raised the taxes, we haven't imposed the fees that will pay for the maintenance of sewer and water," she says.

Given the challenges most communities face in this regard, Schilling says a "Fix it First" policy is the most prudent. "The idea is that you should prioritize maintenance and repair of existing infrastructure," she says. "And, in some cases, expansion of infrastructure that supports existing communities – which is a very fine distinction, but it has big impacts."

And while the Fix it First water policies Smart Growth America advocates are geared mostly towards setting the criteria for state revolving funds, Schilling says the philosophy can certainly be applied at the local level. In fact, she says it may be easier for local leaders to apply this mindset because they have the best idea of where the priorities are. "This is something local governments need to lead on."

So, where are local leaders making headway against the mounting problems?

BOLSTERING THE LEVEES

J. Christian Bollwage, the mayor of Elizabeth, N.J., is working to keep his city's infrastructure afloat – both literally and figuratively. "Elizabeth just celebrated it's 350th birthday," Bollwage says. "That being said, our infrastructure

is well over 100 years old." The age of the system, and the fact that it combines both wastewater and sewer water has been among the city's greatest challenges.

Complicating matters is Elizabeth's geography. Sitting on the Arthur Kill, a tidal strait separating Staten Island, N.Y., from mainland New Jersey, the majority of the city is below sea level, so any time there is expansion in the city, flooding is a very real problem.

A recent example of flood control efforts, Bollwage shares, was along Verona Avenue where the city had to install a 1 million-gallon underwater retainer tank to keep stormwaters from flooding streets, businesses and homes. "We had to dig up a whole neighborhood – without low interest [state revolving fund] loans, we wouldn't have been able to do this."

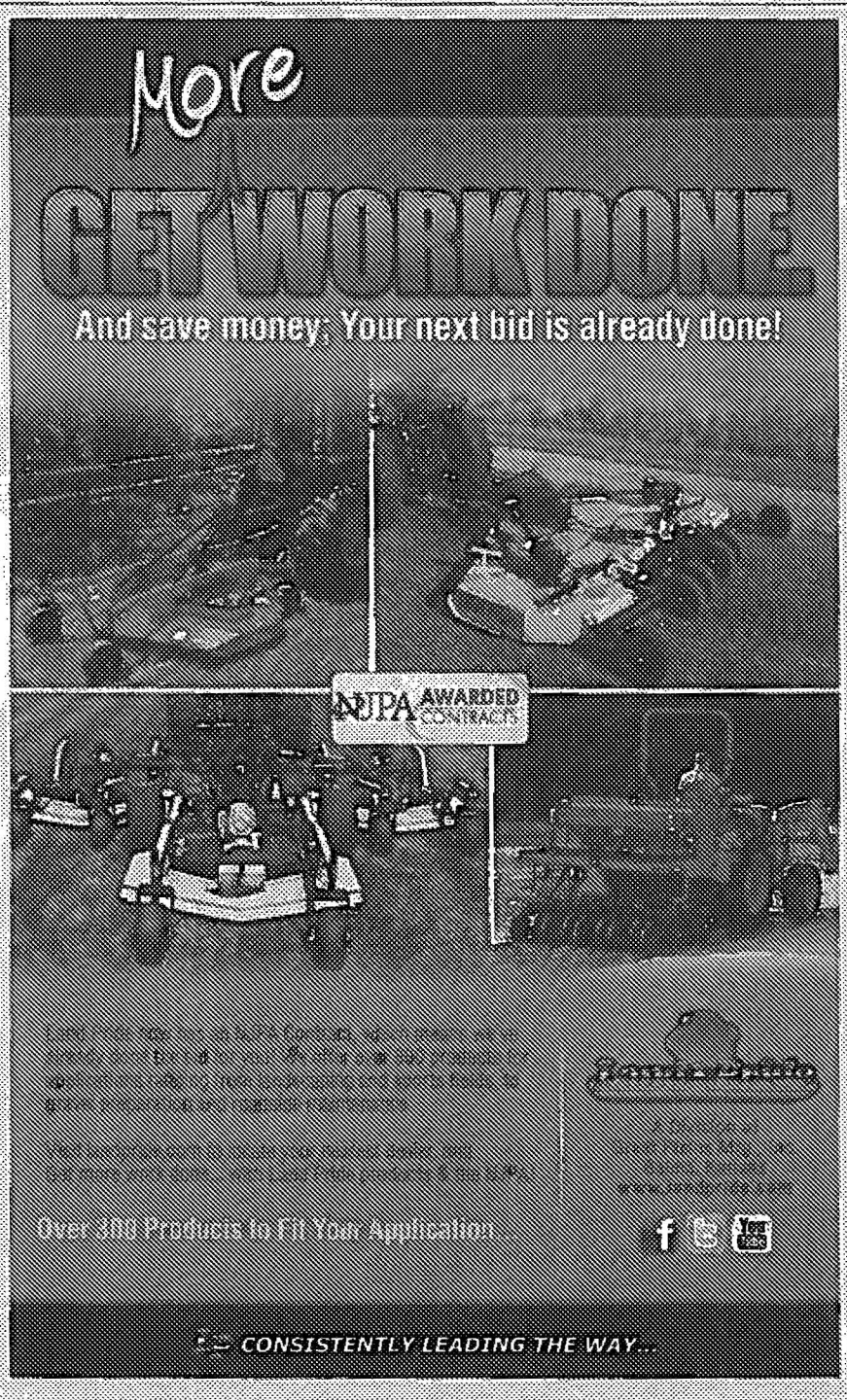
Outside-the-box thinking and partnerships with public entities have also helped Elizabeth in replacing infrastructure. PSE&G, the local electric utility, has plans to replace underground power lines in the city. "They want to run it right on the sewer line," Bollwage says. "The problem is when they dig up the streets and they start running their cable, they're going to crack the sewer lines and it's going to interfere with a lot of residential property." Bollwage is working on an agreement where the power company will replace the lines they encounter during their construction – creating significant cost savings for the city.

When the infrastructure is as old as Elizabeth's "it would be impossible to do it without smart partners like this," Bollwage says.

This creativity is important in Elizabeth and across the country in solving the problems related to water infrastructure. Creativity and speed, Bollwage says, are key to ensuring a city's water system functions as it should. "The public has no patience for failed infrastructure," he says. When there is a problem, the city must be swift in resolving it.

To this end, he says it's important to remain vigilant and have open lines of communication with residents and public works personnel. If a basement is flooded, the local government needs to know before it spreads. If depressions in the roadways are appearing after a thaw, that can be indicative of cracked pipes beneath the surface. As difficult as it is, Bollwage says it's important to stay one step ahead of problems, before they become disasters.

He adds it's important for civic leaders to work hand-in-hand with their state and federal counterparts to ensure the availability of funding programs to "ensure cities and counties in this country can deal with the most important aspect of daily life – that is getting clean water into the house and wastewater out." ■



From: Anderson, Madhu (DEQ)
Sent: Tuesday, November 17, 2015 11:20 AM
To: Ken Sikkema (ksikkema@pscinc.com)
Cc: Agen, Jarrod (GOV); Baird, Richard (GOV); Muchmore, Dennis (GOV); Weber, Travis (GOV); Hollins, Harvey (GOV); Murray, David (GOV); Wurfel, Sara (GOV); Lyon, Nick (DHHS)
Subject: Privileged Attorney-Client Communication - Outline of Flint Drinking Water Issues
Attachments: DEQ's Outline of Flint Drinking Water Issues for Flint Water Task Force - Attorney Client Privilege Work Product -11-16-2015.pdf

Ken – Attached is the outline of the Flint Drinking Water issue (in a question and answer format) we have prepared for you to share with your colleagues on the Governor's Flint Water Task Force. Please let me know if we can provide any other material in preparation for the meeting tomorrow.

Madhu R. Anderson
Deputy Director, Economic and Strategic Initiatives
☎ [redacted]
andersonm30@michigan.gov

City of Flint Drinking Water
Outline prepared by the
Michigan Department of Environmental Quality for the
Flint Water Task Force

I. INTRODUCTION

This document is intended to provide an overview of Michigan's implementation of the Safe Drinking Water Act, 1976 PA 399, as amended (Act 399), with respect to events in the city of Flint (City), Michigan.

II. BACKGROUND

1. How has Flint historically obtained its drinking water?

The water system in the City was organized and built under private ownership in 1883 as the Flint Water Works Company to pump raw water from the Flint River to their consumers. In 1903, the system was converted to a municipally-owned corporation which supplied drinking water to the City. In 1967, the City became a customer of the Detroit Water and Sewerage Department (DWSD) system.

After the switch to DWSD, the City operated its water treatment plant as a standby plant for purposes of reliability in the event of an emergency, such as an interruption in service of the single pipeline from DWSD. In the last ten years, the water treatment plant was used as an emergency backup during two weeks in 2009: June 18 through June 20 and September 10 through September 13.

As a backup emergency water treatment plant, the City was required to operate the water treatment plant quarterly to demonstrate the capability to produce drinking water in accordance with Act 399 and to keep mechanical equipment (such as valves, rubber seals, etc.) in good working order. Each quarter, the water treatment plant was test run and samples were taken of both raw water and finished water (post-filters). Since the water treatment plant was upgraded in the early 2000s, monitoring showed that the water treatment plant was performing as designed.

Contractual obligations with DWSD did not allow treated water to be put into the City's distribution system during these test runs. Treated water was discharged to the Flint River in accordance with a National Pollutant Discharge Elimination System (NPDES) Permit. The test runs were for demonstration purposes, to keep the water treatment plant operational, and staff familiar with operation in the event it was needed in an emergency.

2. What State and Federal laws or rules exist to ensure safe drinking water is provided to City residents?

The federal Safe Drinking Water Act (federal SDWA) is the primary law that ensures the quality of Americans' drinking water. Under the federal SDWA, the United States Environmental Protection Agency (USEPA) sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards.

The federal SDWA was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. (The federal SDWA does not regulate private wells which serve fewer than 25 individuals.)

Originally, the federal SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap.

The most direct oversight of water systems is conducted by state drinking water programs. States can apply to the USEPA for "primacy," - the authority to implement the federal SDWA within their jurisdictions - if they will adopt standards at least as stringent as the USEPA's and enforce those standards. Michigan adopted the Safe Drinking Water Act in 1976 through Act 399 and has maintained primacy for the program since that time.

3. What is the USEPA's role as a regulatory agency in implementing the SDWA?

Federal and state governments share responsibility for administering drinking water programs. Under the federal SDWA, the USEPA is given the responsibility for developing national standards and regulations that apply to the nation's public drinking water systems and enforcing those standards, by working with states.

Michigan's drinking water program is evaluated annually by the USEPA for compliance with the federal SDWA. Based upon these evaluations, the USEPA continues to find Michigan's drinking water program to be compliant with the federal SDWA.

4. What is the Michigan Department of Environmental Quality's (DEQ) role as a regulatory agency in implementing the SDWA?

The federal SDWA permits states to accept oversight of the drinking water program under an agreement with the USEPA giving states primary enforcement responsibilities (or primacy). In addition to this delegation of federal authority to the states, states also have the power to create additional regulations and programs governing drinking water suppliers through their own legislative and regulatory processes. Michigan has had regulatory authority of public water supplies since 1913 (Waterworks and Sewerage Systems, 1913 PA 98).

The DEQ has been granted primary enforcement authority in Michigan for the federal SDWA under the authority of Act 399. As such, the DEQ, Office of Drinking Water and Municipal Assistance, has regulatory oversight for all public water supplies, including approximately 1,400 community water supplies and 10,000 noncommunity water supplies. A community water supply provides year-round service to 15 or more living units (homes, apartments, dorm rooms, etc.) or 25 or more residents. A noncommunity water supply has 15 or more service connections or serves 25 or more individuals on an average daily basis for not less than 60 days per year.

The DEQ engages in a variety of activities to help water systems remain in, or return to, compliance. These activities include: conducting surveillance visits (inspections) at water systems and reviewing facilities, equipment, and operations; requiring the submission of plans and specifications for waterworks system improvements and issuing construction permits; providing for the training, examination, certification and regulation of persons operating water supplies; helping systems incorporate preventive measures; and since 1996, providing financial assistance for system improvements.

5. What is the City's role in implementing the federal SDWA and Act 399?

State and federal programs develop regulations and perform oversight and compliance activities, but do not treat or deliver water to customers. At the local level, public and private water utilities collect, treat, and deliver drinking water to consumers in compliance with state and federal regulations.

The federal SDWA and Act 399 set up multiple barriers against contamination. These barriers include: source water protection, multiple treatment components, distribution system integrity, proper operations oversight, and public information. As the owner of a public water system, the City is responsible for knowing and following all requirements under Act 399, such as ensuring proper design, construction, operations and maintenance, so that contaminants in tap water do not exceed the standards established by law. The City treats the water, and must test its water routinely for specified contaminants and report the results to the DEQ. If a water system is not meeting these standards, it is the water supplier's responsibility to notify its customers.

The federal SDWA and Act 399 recognize that customers have the right to know what is in their drinking water and where it comes from. The City, like all water suppliers, must notify consumers when there is a problem with water quality.

The City submits samples of its water for laboratory testing (monitoring) to verify the water it provides to residents meets all federal and state standards. How often and where samples are taken varies from system to system and from contaminant to contaminant. The DEQ provides an annual monitoring schedule to the City setting forth these requirements.

In addition, the City is required to employ properly certified water operators that are trained and experienced to operate the treatment and distribution systems associated with the City's water system.

6. What approvals were needed from the DEQ in order for the City to begin using its water treatment plant full time?

The City had long ago been issued construction permits for raw water pumps to withdraw water from the Flint River and the City was grandfathered under the water withdrawal program (Part 327, Great Lakes Preservation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended), as were all existing community public water systems at that time. There were no additional DEQ

permissions or authorizations required under Act 399 because the City already had approval to use the water treatment plant.

Under Act 399, there are no licenses or permits required to operate public water systems. The City did apply for and obtained two construction permits prior to the water treatment plant changing from an emergency backup plant to full-time operation. These permits were for new chemical feed equipment, changes to the electrical service, etc.

III. THE FLINT RIVER – IS IT A SAFE SOURCE OF DRINKING WATER?

Seventy-five percent of Michigan's population served by a public water supply receive their drinking water from surface water sources, the majority of which is withdrawn from the Great Lakes. However, several public water supplies in Michigan utilize water from inland rivers. All surface water sources require significant treatment in order to be safe for consumption.

While all surface water sources must receive a high level of treatment, inland river sources present a greater challenge than water withdrawn from one of the Great Lakes because of rapidly changing water quality conditions. Under most circumstances, rivers are prone to greater fluctuations in temperature, have higher amounts of organic material, greater turbidity (suspended solids), and are more vulnerable to microbiological and viral contamination than Lakes Huron, Erie, Michigan or Superior. While the water chemistry in the Flint River differs from that in Lake Huron, it can still be treated in accordance with the federal SDWA and Act 399. The waterworks industry has the technology to treat wide ranging source waters to provide potable and palatable drinking water, including direct reuse of treated wastewater. Regardless of source water quality, all public water systems must comply with the same drinking water standards in the finished water.

It is not the source water that reacts with the homeowners plumbing in the distribution system, but rather the finished water quality that is important. Treated water leaving the City's water treatment plant does not contain lead. In addition, the treatment process employed by the City includes lime softening to reduce the hardness in the river water. The City includes lime softening and pH adjustment primarily to improve aesthetic water quality associated with hardness. Lime softening is not a process that water supply professionals would expect to increase corrosivity of water. The City, however, does practice recarbonation to readjust pH at the end of the softening process.

pH levels of finished water leaving the City's water treatment plant averaged 7.7. Expanded water monitoring conducted quarterly at 25 sample sites located throughout the distribution system showed the following:

July – September 2014	average pH = 7.71	range: 7.56 – 7.86
October – December 2014	average pH = 7.88	range: 7.62 – 8.10
January – March 2015	average pH = 7.81	range: 7.60 – 7.99
April – June 2015	average pH = 7.63	range: 7.48 – 7.80

The data below was obtained at ten of the sampling locations throughout the City's distribution system, while they were still purchasing water from DWSD before the City switched to the Flint River as a source:

January – March 2014 (DWSD)	average pH = 7.47	range: 7.40 – 7.54
April 2014 (DWSD)	average pH = 7.49	range: 7.42 – 7.59

Note that the pH of the treated water produced while the City was using the Flint River did not differ significantly from pH values seen in the distribution system during the time the City purchased water from DWSD. Thus, pH monitoring provided no indication of a change in water corrosivity.

IV. *E. COLI* AND TOTAL COLIFORM BACTERIA VIOLATIONS

1. What caused the *E. coli* and total coliform bacteria violations experienced by the City in August and September 2014?

A number of factors, primarily related to distribution system operation and maintenance, likely contributed to the Boil Water Advisories in the City during August and September 2014 triggered by exceedances of bacteria standards in limited areas of the distribution system. In addition, the coliform detections were confined to less than 20 percent of the water system. Had the detections been the result of a failure in treatment, detections would have been expected throughout the City rather than in such a limited geographic area.

Instead, the violations seem to have been caused by other factors such as aging infrastructure. The City's water distribution system has suffered from a lack of infrastructure investment and asset management. Most of the City's over 550 miles of water mains are now over 75 years old, and constructed of unlined cast iron piping. This cast iron pipe is subject to tuberculation, which thins and weakens the pipe walls in some areas and causes a buildup of sediment and debris on the pipe walls in other areas. Tuberculation can lead to water quality issues as well as reduced flows and pressures. Tuberculation also encourages the development of biofilms. Biofilm growth may occur more frequently in areas where little or no disinfectant is maintained.

The City has also experienced decades of a declining customer base and water use, with vacant homes, commercial businesses, and industrial property. Declining water use leads to excess residence time (water age) within the City's distribution pipes and water storage facilities, accelerating tuberculation, biofilm growth, and reductions of disinfectant concentration in the distribution system. While the City has recently seen an infusion of funding for blight removal, contractors using fire hydrants to complete this work have been known to cause hydraulic disturbances that dislodge and suspend settled debris, which may contribute to the bacterial contamination. These hydraulic disturbances were also believed to be a source of the aesthetic water quality complaints both the City and the DEQ were receiving.

The winter of 2013-2014 was also one of the coldest experienced by the water system. The City, which historically has unaccounted water losses of over 30 percent, saw even greater losses since February 2014 due to an increase in cold weather-related water main breaks and leaks (City personnel reported 400 water

main breaks in calendar year 2014, with greater than 50 percent in the winter quarter). The City has also been lacking a formal maintenance program for its more than 7,250 valves, which are critical in limiting the areas impacted during water main repairs. As an example, two valves on the transmission line used to supply the area of the 2014 Boil Water Advisories were found to be closed during the City's investigation of possible sources, causing much longer residence times, reduced disinfectant concentrations, and reduced pressures – all potential avenues for contamination to enter a distribution system.

The Boil Water Advisories also occurred during the warmest and relatively wet periods of August and September 2014. Warm weather conditions are not only more conducive to bacterial growth but also degrade disinfectant concentrations more quickly. As already explained, longer residence times, biofilms, and tuberculation contribute to lowered disinfectant concentrations. Warm, wet weather conditions also allow water contaminated with bacteria to accumulate or pond around piping that leaks and breaks.

During the summer of 2014, the City was actively repairing the distribution system (City personnel reported 29 water main breaks in June through August 2014). After the switch to the Flint River, it was discovered that there were many broken or closed valves in the distribution system (City personnel reported 120 broken valves and 239 valves in an improper position). As the City began correcting these problems, they did detect the presence of coliform organisms in the distribution system in testing conducted as a result of the repairs. This sporadic detection is not an unusual occurrence. Many communities have experienced similar issues when significant repairs are made in the system and/or they suffer water main breaks and localized pressure losses.

2. How were the violations detected? What was the DEQ's response?

Federal SDWA regulations regarding monitoring and standards for bacteria in water distribution systems are incorporated into Act 399. There are a variety of bacteria, parasites, and viruses which can potentially cause health problems if humans ingest them in drinking water. Testing water for each of these potential pathogens would be difficult and expensive. Instead, community water systems are required to test monthly for total coliform and *E. coli*. Total coliform bacteria, while not pathogenic, often originate from the same sources as many pathogens. Therefore, the presence of total coliform in drinking water indicates there may be a pathway for pathogens or other contaminants to enter the system. The absence of total coliforms in the distribution system indicates a minimal likelihood that pathogens are present. *E. coli* is itself a pathogen and its detection is considered direct evidence of a health risk.

The Boil Water Advisories which occurred in the City were associated with bacteria monitoring detections and violations of bacteria standards. These advisories were issued by the City after consultation with the DEQ.

Upon receiving information indicating total coliform and *E. coli* bacteria had been detected, the DEQ advised the City to issue a Boil Water Advisory from August 15 through 20, 2014, for the affected portion of the City. Another Boil Water Advisory was issued from September 5 through 9, 2014, due to localized detections of total

coliform bacteria in the same and adjacent portions of the City. The advisories covered an area of less than 20 percent of the water department's service area.

Once a Boil Water Advisory has been issued, time is needed to investigate potential causes and implement corrective measures. The larger the water system, the more time this may take. Once corrective measures have been taken, samples must be collected and analyzed to confirm that bacteria are no longer present. Under approved analytical methods used by the City, samples must be incubated for 24 hours before results can be obtained. In situations where the bacterial contamination has been confirmed, two consecutive rounds of safe samples collected at least 24 hours apart are normally obtained before canceling a Boil Water Advisory. Adding each of these steps together, a normal response period to rescind a Boil Water Advisory under these circumstances would be expected to take 3 to 4 days.

V. TOTAL TRIHALOMETHANES (TTHM) VIOLATIONS

1. What caused the TTHM violations experienced by the City beginning in late summer 2014?

Disinfectants are an essential element of drinking water treatment because of the barrier they provide against waterborne disease-causing microorganisms. However, disinfection byproducts form when disinfectants used to treat drinking water react with naturally occurring organic materials in the water (e.g., decomposing plant material). The formation of disinfection byproducts continues to occur as water travels throughout water distribution systems.

A major challenge for water suppliers is how to provide protection from pathogens while simultaneously minimizing health risks to the population from disinfection byproducts. Total Trihalomethanes (TTHM – chloroform, bromoform, bromodichloromethane, and dibromochloromethane) and halogenated acetic acids (HAA5 – monochloro-, dichloro-, trichloro-, monobromo-, dibromo-) are widely occurring classes of disinfection byproducts. The amount of TTHM and HAA5 in drinking water can change depending on the season, water temperature, amount of chlorine added, the amount of plant material in the water, and a variety of other factors. All community water systems that chemically disinfect or purchase water that has been chemically disinfected are required to monitor for disinfection byproducts.

The Flint River has higher levels of organic material than water in the Great Lakes and as a result, the water produced by the City developed higher disinfection byproducts than the water purchased from DWSD. Because the water treatment plant was previously operating intermittently, it was not possible to predict disinfection byproduct levels at distribution system compliance points until the City began relying on its water treatment plant continuously.

As mentioned previously, the City became aware that there were numerous broken valves and closed valves that should have been open in the distribution system. At that time, the City also began a mapping effort to identify "water age" in the distribution system. The longer the residence time or "water age" the greater the opportunity for the formation of disinfection byproducts.

2. How were the violations detected? What was the DEQ's response?

Disinfection byproducts are monitored at eight sites throughout the distribution system. A locational running annual average is calculated for each individual site. Because TTHM and HAA5 maximum contaminant levels are calculated based on a running annual average at specific distribution system locations, the actual violation of the standard did not occur until the fall of 2014. However, because it was apparent in the summer of 2014 that the standard would eventually be exceeded; the DEQ asked the City to proactively implement measures to address the problem before the violation required them to do so.

As a result of maintenance efforts undertaken by the City to repair valves and correct improperly closed valves, the City was able to improve water flow in the distribution system and thereby reduce residence time or "water age" in the system. Operational changes made to reduce the amount of storage in the system also helped reduce residence time which contributed to a reduction in disinfection byproduct formation.

In addition to operational changes to minimize residence time in the distribution system, the City added granular activated carbon to its filters in July 2015. Levels of TTHMs and HAA5s were reduced and the City returned to compliance on September 1, 2015.

VI. THE TASTE, ODOR, AND COLOR COMPLAINTS RECEIVED BY FLINT

1. What caused the taste, odor, and color complaints received by the City from residents?

Taste, odor, and color issues are very personalized. While water leaving the water treatment plant did not have any unusual taste, odor or color; during the summer after the switch to the Flint River, customer complaints increased. Construction in the distribution system, hydrant flushing, and changes in flow characteristics are all known causes of disturbances within the distribution system that can cause an increase in taste, odor, and color complaints. Aesthetics, such as taste, odor, and color, while a concern, by themselves are not a threat to public health.

2. What was the DEQ's response?

The DEQ consulted with the City regarding these complaints. The City indicated that they were offering to investigate such complaints for anyone that had issues; but City personnel informed the DEQ that they were not able to recreate these situations in the field. In addition, as a result of the repair work that was underway and the increased flushing to reduce water age in the system to help control TTHMs, it was anticipated that there would be short-term disturbances in the system that would cause color and odor complaints. All water supplies are advised to provide notice to residents prior to undertaking a flushing program because flushing (even routine flushing) often causes temporary problems as described. Based on information from City personnel, it appeared that the complaints were related to such operational activities occurring in the distribution system.

VII. LEAD ISSUES IN THE FLINT DRINKING WATER

1. What causes lead in drinking water?

Lead is rarely found in source water. Lead enters tap water through corrosion of plumbing materials. Homes built before 1986 are more likely to have lead fixtures and solder. Older homes built prior to World War II are more likely to contain lead pipes. The most common problem with newer construction is with brass or chrome-plated brass faucets and fixtures which can leach significant amounts of lead into the water, especially hot water. The amount of lead in tap water also depends on the types and amounts of minerals in the water, how long the water stays in the pipes, the amount of wear in the pipes, the pH of the water, and its temperature.

2. What is the Lead and Copper Rule?

On June 7, 1991, the USEPA published a regulation to control lead and copper in drinking water. This regulation is known as the Lead and Copper Rule (also referred to as the LCR). The treatment technique for the rule requires systems to monitor drinking water at customer taps. If the 90th percentile for lead exceeds an action level of 15 parts per billion (ppb) or the 90th percentile for copper exceeds an action level of 1.3 parts per million (ppm), the system must undertake a number of additional actions to control corrosion. If the action level for lead is exceeded, the water supply must also inform the public about steps they should take to protect their health and the water supply may have to replace lead service lines under their control.

3. What is the lead action level?

For most contaminants, the USEPA sets an enforceable regulation called a maximum contaminant level based on the maximum contaminant level goal. Maximum contaminant levels are set as close to the maximum contaminant level goals as possible, considering cost, benefits, and the ability of public water systems to detect and remove contaminants at the water treatment plant using suitable treatment technologies. Because lead contamination of drinking water often results from corrosion of the plumbing materials belonging to water system customers, the USEPA established a treatment technique rather than a maximum contaminant level for lead. A treatment technique is an enforceable procedure or level of technological performance which water systems must follow to control a contaminant. Although the maximum contaminant level goal for lead is zero, based upon the above factors, the USEPA has established the action level for lead at 15 ppb.

The treatment technique regulation for lead requires water systems that produce drinking water to control the corrosivity of the water. The regulation also requires systems to collect customer tap samples from sites served by the system that are more likely to have plumbing materials containing lead. If the 90th percentile action level for lead is exceeded, then water systems are required to take additional actions including:

- Optimizing corrosion control treatment (for water systems serving greater than 50,000 people that have not fully optimized corrosion control).

- Educating the public about lead in drinking water and actions consumers can take to reduce their exposure to lead.
- Replacing the portions of lead service lines (lines that connect distribution mains to customers) under the water system's control.

4. Did DWSD have optimized corrosion control treatment?

After the LCR passed in 1991, DWSD and all of its consecutive customer systems conducted two rounds of monitoring for lead and copper. Copper levels were well below action level limits, but lead levels exceeded the action level of 15 ppb for DWSD and many of its customer communities. As a result, DWSD installed corrosion control treatment. DWSD performed a corrosion control study and concluded that they could reduce the corrosivity of the water by the addition of an orthophosphate, a corrosion inhibitor.

5. Did the DEQ require the City to have corrosion control in place when it switched to the Flint River as its source of drinking water?

No. There are two ways under the LCR to deem a water supply as providing "optimal corrosion control" – either by sampling and determining through a calculation that the supply is "optimal" or by installing treatment if it is needed. The DEQ requested that the City perform two 6-month rounds of monitoring to demonstrate if the City was practicing optimal corrosion control treatment. According to state regulations [R325.10604f(2)(b)(iii)], a system can demonstrate optimized corrosion controls by sampling in two, consecutive 6-month monitoring periods and comparing the results of this monitoring to the lead level in the source. Optimal corrosion control under this scenario would be defined as having the 90th percentile in each of these monitoring periods lower than the sum of the lead in the source and the practical quantification limit for lead of 5 ppb. Since the source water has 0 ppb lead, the City would have been deemed optimal if its 90th percentile of lead was 5 ppb or less in these two consecutive periods. However, once a system has installed treatment, it would also be considered optimized regardless of the 90th percentile level achieved, as long as it does not exceed the action level of 15 ppb.

In this case, the City had been purchasing water from DWSD that was treated for corrosion control. It was the DWSD water system that was considered as having optimized corrosion control at that point. Since the City water system had not been the supplier of water before, the DEQ did not require the City to maintain corrosion control for which it was not responsible [R325.10604f(2)(b)]. It could not "maintain" operations undertaken elsewhere by a different entity for a different source of water. The DEQ's instructions to the City were consistent with past practices afforded to all other large water systems. At the beginning of the LCR, all large systems were initially granted the option to demonstrate optimal corrosion control treatment through full-scale monitoring under the applicable rules. For these reasons, two 6-month rounds of monitoring, as required by the LCR, were the required means to determine whether or not optimal corrosion control was being achieved.

6. How does the DEQ calculate the 90th percentile?

To determine the 90th percentile of a list of lead or copper results, the procedure below is followed:

Step 1: Place lead or copper results in ascending order
Step 2: Assign each sample a number, 1 for lowest value
Step 3: Multiply the total number of samples by 0.9 – this yields the 90th percentile sample. For example: 20 samples x 0.9 = 18th sample. This is the 90th percentile level.

Calculating the 90th percentile is easiest when a supply collects 10 samples (or a multiple of 10). Note that the 90th percentile must be interpolated if the number of samples is not a multiple of 10.

7. What was the result of the first round of monitoring conducted by the City?

The first 6-month round of lead and copper monitoring conducted by the City ended on December 31, 2014. One hundred samples were submitted and the 90th percentile lead level was calculated to be 6 ppb. The next step required by the DEQ was for the City to collect a second round of monitoring.

8. What was the result of the second round of monitoring conducted by the City?

The second 6-month round of lead and copper monitoring conducted by the City ended on June 30, 2015. Sixty-nine samples that complied with the site selection criteria were submitted and the 90th percentile lead level was calculated to be 11 ppb. The conclusion from these results was that the City, while in compliance with the action level, exceeded the level required to be deemed as having optimized corrosion control.

9. Why was the City required to collect 100 compliance samples for lead and copper in the first 6-month monitoring period of July through December of 2014 and then only 60 compliance samples in the second 6-month period of January through June of 2015?

The number of compliance samples required for lead and copper is based upon the population served by the water system as identified in the table below, taken from Rule 325.10710a of Act 399.

Supply Size (Number of People Served)	Number of Sites (Standard Monitoring)	Number of Sites (Reduced Monitoring)
More than 100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
Fewer than 101	5	5

The number of samples the City was required to collect in the first round of monitoring after they began relying on the Flint River was based on the 2010 census, which listed the City's population as more than 100,000 residents. In March of 2015, the City provided updated information that indicated the City's population had decreased to less than 100,000. Therefore, they were only required to collect 60 samples. There is no rule prohibiting the collection of additional compliance samples – only establishing a minimum number necessary.

10. What actions did the DEQ order the City to undertake after the second round of monitoring?

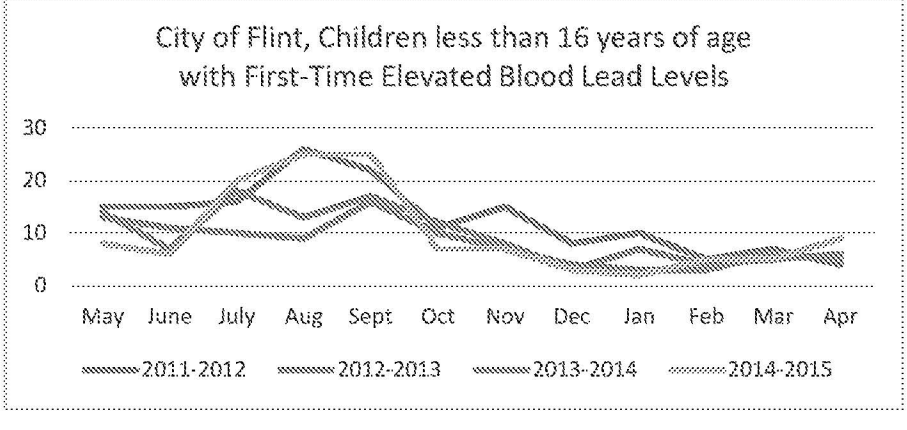
While the City's LCR compliance monitoring continued to meet action level requirements, the City exceeded the level required to be deemed as having optimized corrosion control. Following receipt of the City's compliance monitoring results, the DEQ sent a letter on August 17, 2015, requiring the City to install corrosion control treatment.

Under the LCR, the City has 6 months to let the DEQ know whether it intends to conduct a study, then 18 months to perform the study and make its recommendation, and 24 months to complete installation of the selected corrosion control. The DEQ requested the City accelerate this schedule. The City submitted plans and specifications to install corrosion control treatment and a construction permit was issued by the DEQ on October 28, 2015. The City is in the process of installing the necessary equipment and procuring the appropriate chemicals. Treatment is expected to be on-line by the end of November 2015. As of October 16, 2015, the City resumed purchasing water from DWSD that is already optimized and provides a corrosion inhibitor. The additional treatment by the City will further enhance the amount of inhibitor in the system.

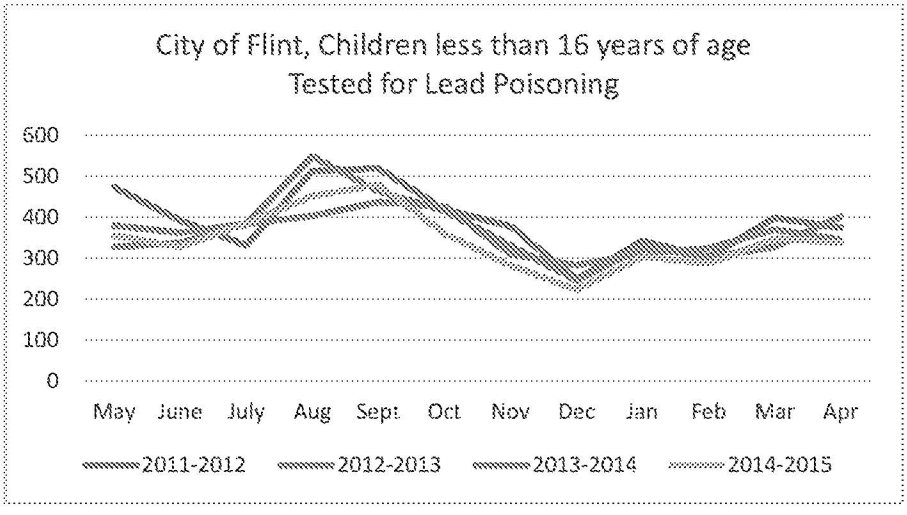
11. What had Michigan Department of Health and Human Services (DHHS) advised the DEQ regarding blood lead levels prior to the DEQ ordering the City to implement optimized corrosion control?

In an e-mail dated July 28, 2015, regarding blood lead testing, the Michigan DHHS indicated that they:

> "…compared lead testing rates and lead testing results to the same time frame for the previous 3 years, to see if there were any patterns that suggested that there were increased rates of lead poisoning after the water supply was switched. Per the attached charts –
>
> • Lead testing rates remained about the same from year-to-year…



- There was a spike in elevated blood lead tests from July-September 2014…



- However, that pattern was not terribly different from what we saw in the previous three years; especially in 2011-2012 (we are working with our Epidemiologist to statistically verify any significant differences).

- We commonly see a 'seasonal effect' with lead, related to people opening and closing windows more often in the summer, which disturbs old deteriorating paint on the windows, sills and sashes. Window fans frequently blow and spread the lead dust from the deteriorating paint to other parts of the room/house. We suspected that the summer data spike may be related to this effect.

- If the home water supply lines and/or river water were contributing to elevated blood lead tests, we expected that the increased rates would extend beyond the summer, but they drop quite a bit from September to October, stayed low over the winter, and are just starting to tail up again in the spring of 2015."

This e-mail from DHHS in concert with the completion of two 6-month rounds of lead compliance sampling data indicating that the City had not exceeded an action level for lead provided the basis for the DEQ to maintain that the water in the City continued to be in compliance with the federal SDWA and Act 399.

12. When did the DEQ first become aware of allegations of elevated blood levels being detected in certain children?

The DEQ was notified on August 23, 2015, by a professor from Virginia Tech that "over the next few months we will be studying Flint water quality issues…" Results indicating elevated lead levels in homes were reported as part of this study in late August. In September 2015, information was reported in news articles that

pediatricians in the City had data suggesting an increase in children's blood lead levels in two zip codes in the Flint area.

Prior to these dates, the City had already completed the required two 6-month rounds of monitoring and the DEQ had made a determination that the City must install corrosion control treatment as documented in correspondence dated August 17, 2015.

VIII. QUESTIONS RAISED REGARDING THE DEQ'S ACTIONS

1. **What was the DEQ's response to the USEPA's inquiry in February 2015 regarding the optimized corrosion control treatment being implemented by the City under the LCR?**

   The DEQ indicated that the City was complying with the LCR, the lead 90th percentile level was below the action level of 15 ppb, and the City was already conducting the second round of monitoring which would provide for a determination of whether additional treatment needed to be installed. It should be noted that once treatment is designated as optimal, there is no requirement in the LCR that lead results be lower than they were before treatment was installed. The 90th percentile only needs to be lower than the action level in the LCR.

2. **Did the DEQ attempt to mislead the USEPA in a February 27, 2015, e-mail responding to the USEPA's inquiry regarding Optimal Corrosion Control Treatment?**

   No. There was no attempt by the DEQ to mislead the USEPA. There is an e-mail from Steve Busch, Jackson and Lansing District Supervisor, Office of Drinking Water and Municipal Assistance, indicating that the City was practicing a corrosion control program. What was meant was that the City was performing the required monitoring to determine whether or not they were practicing optimized corrosion control. The DEQ subsequently clarified its position in follow-up e-mails and telephone conversations with the USEPA.

3. **When General Motors announced its intent to terminate water service from the City and purchase water from Genesee County, should this have been a sign that there were concerns with the quality of the water after the switch to the Flint River?**

   No. General Motors made a decision regarding the quality of water for its manufacturing processes. At the time, the company indicated that the chloride levels were above limits acceptable as part of the manufacturing facility's limit for production purposes. The level of chlorides in the water treated by the City was not a human health or aesthetic concern.

   Chloride does have a secondary maximum contaminant level established by the USEPA, not for health-related concerns but rather for taste and aesthetic concerns. Concentrations greater than the secondary maximum contaminant level of 250 milligrams per liter (mg/l) become objectionable due to taste. According to the City's records, the chloride concentration in the Flint River water is generally about 45 mg/l and the treated water chloride concentration leaving the water treatment

plant ranges between 55 and 65 mg/l. It should be noted that the City uses ferric chloride as its primary coagulant, although this does not add a significant amount of chloride to the finished water.

4. Has the USEPA subsequently admitted that the LCR is subject to differing interpretations such as that presented by the DEQ?

Yes. On November 3, 2015, the USEPA issued a memorandum regarding the "Lead and Copper Rule Requirements for Optimal Corrosion Control Treatment for Large Drinking Water Systems". This memorandum addresses concerns raised about the application of the LCR, specifically the requirements pertaining to maintenance of optimal corrosion control treatment, in situations in which a large water system ceases to purchase treated water and switches to a new drinking water source. The USEPA states that this type of situation rarely arises, that the language of the LCR does not specifically discuss such circumstances, and that there are differing possible interpretations of the LCR with respect to how the rule's optimal corrosion control treatment procedures apply to this situation. The memorandum is intended to clarify, on a prospective basis, steps agencies should take or apply in the future. USEPA's new guidance provides acknowledgement that the LCR is subject to differing interpretations. The DEQ's interpretation and application of the LCR in this situation was in compliance with the federal SDWA and Act 399.

5. Did the DEQ reject any of the samples submitted by the City?

Yes, samples at two locations were excluded from the compliance calculation in conformance with rules issued by the USEPA.

According to the LCR, compliance samples must be a first draw, 1-liter sample collected from a cold water, kitchen or bathroom tap after the tap has stood unused for not less than 6 hours. Federal and state rules require community public water systems to identify a pool of targeted high-risk sampling sites, called Tier 1 sampling sites. For a municipality such as the City, the Tier 1 sampling pool must consist of single family structures that are:

- served by a lead service line,
- contain lead pipes, or
- contain copper pipes soldered with lead installed after 1982 but before Michigan enacted the ban on solder containing high concentrations of lead (June, 1988).

As long as a community has Tier 1 sites that contain lead service lines, they are required to collect at least 50 percent of their compliance samples from these lead service line sites. Finally, federal and state rules specify that "Sampling sites may not include faucets that have point of use or point of entry treatment devices designed to remove inorganic contaminants." Such treatment devices include home softeners, iron filters, etc. Samples collected from multiple family residences, commercial buildings, institutional facilities, or single family structures with point-of-use or point-of-entry treatment can only be used if the community has insufficient Tier 1 sites available.

One of the samples submitted by the City was excluded from the 90th percentile compliance calculation in the latest monitoring period because it was taken from a tap at a non-residential site (non-Tier 1). The other sample result that was excluded was collected from a single family home that has a whole house treatment system. Both of these sites are, therefore, excluded from the compliance consideration based upon federal and state rules.

6. Did the DEQ review the information submitted by the City to ensure all samples were from Tier 1 sites?

Yes. The DEQ examined the information submitted and certified by the City that its LCR compliance monitoring sites consisted entirely of Tier 1 criteria sites, which met the requirements of this rule to maximize sampling of high-risk targeted sites.

During the initial implementation of the LCR approximately 25 years ago, water supplies were required to complete a materials evaluation of their distribution system to identify a pool of targeted, high-risk sampling sites. These sites were to be categorized into one of three Tiers (1, 2, or 3) based on risk. The DEQ created an LCR reporting template for water systems to identify each compliance sampling site by Tier, service line material, and building plumbing material.

If a water system has sufficient Tier 1 sites, they are required to sample them before using any lower Tier sites. Furthermore, if they have sufficient sampling sites with lead service lines, they are required to use them to make up at least 50 percent of their sampling pool each monitoring period. Water supplies are also required to use the same sampling sites each time or explain on their LCR reporting form why they were unable to do so. Finally, the water system is required to certify all of the information they provide on the LCR reporting form is factual.

The DEQ must rely upon the public water system to identify appropriate sampling sites for LCR monitoring. The DEQ public water supply program has no control or authority over service lines or domestic plumbing. As a result, we have no records on construction standards or materials used by customers for these components. If these records exist, they are kept by plumbing code enforcement officials.

In 2015, City employees again certified that the information submitted on their LCR monitoring reports for the two 6-month rounds of monitoring conducted after they began treating the Flint River were accurate, and DEQ staff review of that information indicated it was in compliance with the monitoring requirements. The DEQ had no reason to question the validity of the City's reports until the DEQ heard City employees revealing to the media that the City did not know for certain if its compliance monitoring was collected from homes with lead service lines. As a result, the DEQ began to investigate the City's monitoring sites. As the City began to transfer its customer information to electronic records, the DEQ determined from the information available that a significant number of these sites that had been listed as having lead service lines either did not have them or the information was unavailable. On November 9, 2015, the DEQ notified the City in writing that it would be necessary to conduct a complete assessment of its sampling pool and report back its findings by December 30, 2015. The DEQ is now awaiting the City's response.

7. Did the DEQ believe the levels of lead found at 212 Browning in April 2015 were indicative of a system-wide problem?

High levels of lead were collected in samples taken from this residence. It was determined to be coming from an unusually long lead service line. For some reason, this home was not connected to the water main that ran in front of the house, but rather to a main located on a street several houses away. The City replaced the lead service line May 6, 2015. Since the internal plumbing of the house is plastic, it was believed that replacement of the lead service line would resolve the problem, and subsequent sampling taken at this address showed that replacement of the service line did mitigate the problem. There was, therefore, no reason to believe that this was indicative of a system-wide problem.

8. Do the DEQ's sampling instructions comply with the LCR?

The DEQ continues to seek official clarification from the USEPA regarding the sampling protocols. The DEQ's sampling recommendations were developed to ensure compliance with the USEPA's guidance provided in the preamble to their lead and copper regulations that said that household use should be "typical" for a residential customer on the day before sample collection for lead and copper. Early in the implementation of the LCR, the DEQ had encountered too many situations where compliance samples had been collected from kitchen and bathroom taps that had not been used in days and in some cases, even weeks, resulting in excessively stagnated water and correspondingly high lead levels that did not represent typical exposure expected after overnight stagnation. To incorporate these results into further regulatory decision making could have led to actions that were not indicative of a true public health threat. Further complicating this issue was the USEPA's direct implementation of the LCR in Washington, D.C., where it was learned that some "valid" lead results were not always being included in compliance calculations. Subsequently, the USEPA made invalidation of samples for any reason much more difficult. In order to ensure samples were taken at customer taps representative of typical use, the DEQ devised the current recommendations for ensuring appropriate but not excessive stagnation for LCR monitoring.

The DEQ continues to believe it is appropriate to ensure that taps being sampled are representative of typical household use and are sampled during the recommended stagnation period of 6-18 hours. The LCR does not say the result should represent the "absolute worst case" condition – it talks about sampling the highest risk locations (lead plumbing, lead service lines, high lead content solder piping, etc.) after overnight stagnation and then collecting a first draw sample so as not to flush elevated lead from that tap at that point in time. There are a number of other states that share the DEQ's interpretation of the rule and the DEQ encourages the USEPA to provide official clarification directed at all states with primacy.

9. Does the DEQ require the use of small-neck bottles to obtain samples?

No. The DEQ does not mandate the use of small-neck bottles; it is the sampling method that is specified in both the federal SDWA and Act 399. Each certified drinking water laboratory provides bottles to their customers upon request for any particular analysis in accordance with the specifications in the SDWA. The bottles provided by the DEQ Drinking Water Laboratory for a lead and copper corrosion control sample meet these requirements.

From: Muchmore, Dennis (GOV)
Sent: Tuesday, November 17, 2015 5:24 PM
To: Anderson, Madhu (DEQ); Ken Sikkema (ksikkema@pscinc.com)
Cc: Agen, Jarrod (GOV); Baird, Richard (GOV); Weber, Travis (GOV); Hollins, Harvey (GOV); Murray, David (GOV); Wurfel, Sara (GOV); Lyon, Nick (DHHS)
Subject: RE: Privileged Attorney-Client Communication - Outline of Flint Drinking Water Issues

Thank you Madhu, the outline is helpful to all of us.

From: Anderson, Madhu (DEQ)
Sent: Tuesday, November 17, 2015 11:20 AM
To: Ken Sikkema (ksikkema@pscinc.com) <ksikkema@pscinc.com>
Cc: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Weber, Travis (GOV) <WeberT7@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>
Subject: Privileged Attorney-Client Communication - Outline of Flint Drinking Water Issues

Ken – Attached is the outline of the Flint Drinking Water issue (in a question and answer format) we have prepared for you to share with your colleagues on the Governor's Flint Water Task Force. Please let me know if we can provide any other material in preparation for the meeting tomorrow.

Madhu R. Anderson
Deputy Director, Economic and Strategic Initiatives
☎ [redacted]
✉ andersonm30@michigan.gov

From: Posthumus, Dick (GOV)
Sent: Thursday, December 03, 2015 4:17 PM
To: Agen, Jarrod (GOV); Rich Baird; Hollins, Harvey (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV)
Subject: Flint

I know just enough about the Flint situation to be dangerous so if the following doesn't make sense let me know. I have talked to both Senator Ananich and Representative Neely. They like the Governor and appreciate his efforts in Flint. However, they believe because of the combination of the water issue, the "take over" issue, and the approach that Darnell and/or the city manager is taking that it has created a great deal of animosity in Flint. I asked Rep. Neely if the Governor could only do one thing what would you have him do to improve the situation. He said to give the new mayor the ability to appoint some of her own executive staff (legal counsel, etc) that aren't involved with the finances (much like we did in Detroit). Is this something we should consider?
Dick

From: Brown, Jessica (GOV)
Sent: Tuesday, December 08, 2015 2:56 PM
To: Bedan, Morgan (GOV)
Cc: Biehl, Laura (GOV); Agen, Jarrod (GOV)
Subject: 12/9 Radio Briefings

RDS – LIVE Radio interview with WTCM and Ron Jolly

Time: 7:25 – 7:35 a.m.

RDS to call: [redacted]
Call at 7:24, will go live within one minute

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:
- Road Funding package
- Energy update
- Syrian Refugee stance
- Pipeline Safety Committee

Recent articles:
Northern republicans backed road plan (Cheboygan Tribune)
http://www.cheboygannews.com/article/20151110/BLOGS/151109101
County Commissioners wait on pipeline resolution (Petoskey News)
http://www.petoskeynews.com/featured-pnr/county-commissioners-wait-on-pipeline-resolution/article_2b43079f-c4ff-57c2-bb9a-cc145c59d29c.html
Senate leaders: Michigan energy overhaul won't happen in 2015 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/senate_leaders_michigan_energy.html
Utilities stress urgency of Michigan energy overhaul as it spills into 2016 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/utilities_stress_urgency_of_mi.html
Despite Snyder's "pause," Syrian refugees continue to arrive in Michigan (Michigan Radio)
http://michiganradio.org/post/despite-snyder-s-pause-syrian-refugees-continue-arrive-michigan#stream/0

Last interview: 4/30/15 re: Importance of roads ballot proposal that went before voters on May 5.

Market: Traverse City / online http://wtcmradio.com/

Contact: Studio line: [redacted]; Back-up: [redacted]

RDS – LIVE Radio interview with WSJM and Pat Moody

Time: 7:40 – 7:50 a.m.

RDS to call: [redacted]
Call right at 7:40, live when phone is answered. Stay on line until phone is picked up as Pat is the only one in studio.

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- Job creation/skilled trades in 2015
- Education accomplishments and look-ahead
- Road Funding package
- Energy update
- Syrian Refugee stance

Recent articles:
Road funding deal to be signed (WSJM)
http://www.wsjm.com/2015/11/10/road-funding-deal-to-be-signed/
Gov. Snyder wants bipartisan group to address (WSJM)
http://www.wsjm.com/2015/12/02/governor-snyder-wants-bipartisan-group-to-address-concerns-over-refugee-screening/
Nesbitt's Energy committee trying to pass energy reform
http://www.wsjm.com/2015/11/05/nesbitts-energy-committee-trying-to-pass-energy-reform-bills-today/
Oil spill, high waves: A Great Lakes Disaster Scenario (Detroit Free Press)
http://www.freep.com/story/news/local/michigan/2015/12/05/enbridge-pipeline-straits-mackinac-oil-spill-waves/76728434/
Gov. Rick Snyder launches statewide tour to promote skilled trades (MLive)
http://www.mlive.com/news/grand-rapids/index.ssf/2015/11/governor_snyder_launches_state.html
County Commissioners wait on pipeline resolution (Petoskey News)
http://www.petoskeynews.com/featured-pnr/county-commissioners-wait-on-pipeline-resolution/article_2b43079f-c4ff-57c2-bb9a-cc145c59d29c.html
Senate leaders: Michigan energy overhaul won't happen in 2015 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/senate_leaders_michigan_energy.html

Last interview: 3/20/15 re: Importance of roads ballot proposal that went before voters on May 5.

Market: St. Joe/Benton Harbor- http://www.wsjm.com/

Contact: Studio line: [redacted]; Back-up (Pat's cell): [redacted]

RDS – TAPED Radio interview with WFNT and Jason Cooper

Time: 7:55 – 8:05 a.m.

RDS to call: [redacted]
Call right at 7:55, interview is taped.

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- Road Funding package
- Flint's emergency manager exit
- Flint water

- Syrian refugee talks
- Concealed carry bill re: prison guards and parole officers
- Education accomplishments and look-ahead (if time allows)

Recent articles:
Flint schools slash debt by $11M, but state to review finances under new law (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_school_district_slashes.html
Flint city attorney resigns; new mayor says she expects to name replacement (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/peter_bade_flint_city_attorney.html
Flint Mayor Karen Waver unveils 100-day plan, including audit of city funds (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_mayor_karen_weavers_100-.html
Push to recall Snyder over Flint water crisis stalls (Detroit Free Press)
http://www.freep.com/story/news/local/michigan/2015/12/03/elections-board-rejects-latest-snyder-recall-petition/76713410/
Give Flint $50M to replace lead water pipes (Detroit Free Press)
http://www.freep.com/story/news/columnists/rochelle-riley/2015/11/12/flint-water-sheldon-neeley-michigan-legislature/75610846/

Last interview: 3/10/15 re: Importance of roads ballot proposal that went before voters on May 5.

Notes: Jason Cooper<http://wfnt.com/author/jcooper/> WFNT's News Director and host of Conversations with Jason Cooper. Interview will air during Jason's show from 11-noon.

Market: Flint and Saginaw Metro and online at http://wfnt.com/

Contact: Studio line: [redacted] Back-up: [redacted]

Jessica M. Brown
Communications Representative
Executive Office of Michigan Governor Rick Snyder
O: 517-335-6397
M: [redacted]
BrownJ53@michigan.gov

From: Brown, Jessica (GOV)
Sent: Tuesday, December 08, 2015 3:49 PM
To: Agen, Jarrod (GOV); Bedan, Morgan (GOV)
Cc: Biehl, Laura (GOV)
Subject: RE: 12/9 Radio Briefings

Brad and Jen are working on it. Spoke to them both right after out comms. meeting. I just followed up asking for an ETA.

Morgan is holding the briefing for now.

From: Agen, Jarrod (GOV)
Sent: Tuesday, December 08, 2015 3:48 PM
To: Brown, Jessica (GOV) <BrownJ53@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>
Cc: Biehl, Laura (GOV) <BiehlL@michigan.gov>
Subject: RE: 12/9 Radio Briefings

Did we get updated Flint info for him?

From: Brown, Jessica (GOV)
Sent: Tuesday, December 08, 2015 2:56 PM
To: Bedan, Morgan (GOV) <BedanM@michigan.gov>
Cc: Biehl, Laura (GOV) <BiehlL@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: 12/9 Radio Briefings

RDS – LIVE Radio interview with WTCM and Ron Jolly

Time: 7:25 – 7:35 a.m.

RDS to call: [redacted]
Call at 7:24, will go live within one minute

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:
- Road Funding package
- Energy update
- Syrian Refugee stance
- Pipeline Safety Committee

Recent articles:
Northern republicans backed road plan (Cheboygan Tribune)
http://www.cheboygannews.com/article/20151110/BLOGS/151109101
County Commissioners wait on pipeline resolution (Petoskey News)
http://www.petoskeynews.com/featured-pnr/county-commissioners-wait-on-pipeline-resolution/article_2b43079f-c4ff-57c2-bb9a-cc145c59d29c.html
Senate leaders: Michigan energy overhaul won't happen in 2015 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/senate_leaders_michigan_energy.html

Utilities stress urgency of Michigan energy overhaul as it spills into 2016 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/utilities_stress_urgency_of_mi.html
Despite Snyder's "pause," Syrian refugees continue to arrive in Michigan (Michigan Radio)
http://michiganradio.org/post/despite-snyder-s-pause-syrian-refugees-continue-arrive-michigan#stream/0

Last interview: 4/30/15 re: Importance of roads ballot proposal that went before voters on May 5.

Market: Traverse City / online http://wtcmradio.com/

Contact: Studio line: [redacted]; Back-up: [redacted]

RDS – LIVE Radio interview with WSJM and Pat Moody

Time: 7:40 – 7:50 a.m.

RDS to call: [redacted]
Call right at 7:40, live when phone is answered. Stay on line until phone is picked up as Pat is the only one in studio.

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- Job creation/skilled trades in 2015
- Education accomplishments and look-ahead
- Road Funding package
- Energy update
- Syrian Refugee stance

Recent articles:
Road funding deal to be signed (WSJM)
http://www.wsjm.com/2015/11/10/road-funding-deal-to-be-signed/
Gov. Snyder wants bipartisan group to address (WSJM)
http://www.wsjm.com/2015/12/02/governor-snyder-wants-bipartisan-group-to-address-concerns-over-refugee-screening/
Nesbitt's Energy committee trying to pass energy reform
http://www.wsjm.com/2015/11/05/nesbitts-energy-committee-trying-to-pass-energy-reform-bills-today/
Oil spill, high waves: A Great Lakes Disaster Scenario (Detroit Free Press)
http://www.freep.com/story/news/local/michigan/2015/12/05/enbridge-pipeline-straits-mackinac-oil-spill-waves/76728434/
Gov. Rick Snyder launches statewide tour to promote skilled trades (MLive)
http://www.mlive.com/news/grand-rapids/index.ssf/2015/11/governor_snyder_launches_state.html
County Commissioners wait on pipeline resolution (Petoskey News)
http://www.petoskeynews.com/featured-pnr/county-commissioners-wait-on-pipeline-resolution/article_2b43079f-c4ff-57c2-bb9a-cc145c59d29c.html
Senate leaders: Michigan energy overhaul won't happen in 2015 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/senate_leaders_michigan_energy.html

Last interview: 3/20/15 re: Importance of roads ballot proposal that went before voters on May 5.

Market: St. Joe/Benton Harbor- http://www.wsjm.com/

Contact: Studio line: [redacted] Back-up (Pat's cell): [redacted]

RDS – TAPED Radio interview with WFNT and Jason Cooper

Time: 7:55 – 8:05 a.m.

RDS to call: [redacted]
Call right at 7:55, interview is taped.

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- Road Funding package
- Flint's emergency manager exit
- Flint water
- Syrian refugee talks
- Concealed carry bill re: prison guards and parole officers
- Education accomplishments and look-ahead (if time allows)

Recent articles:
Flint schools slash debt by $11M, but state to review finances under new law (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_school_district_slashes.html
Flint city attorney resigns; new mayor says she expects to name replacement (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/peter_bade_flint_city_attorney.html
Flint Mayor Karen Waver unveils 100-day plan, including audit of city funds (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_mayor_karen_weavers_100-.html
Push to recall Snyder over Flint water crisis stalls (Detroit Free Press)
http://www.freep.com/story/news/local/michigan/2015/12/03/elections-board-rejects-latest-snyder-recall-petition/76712410/
Give Flint $50M to replace lead water pipes (Detroit Free Press)
http://www.freep.com/story/news/columnists/rochelle-riley/2015/11/12/flint-water-sheldon-neeley-michigan-legislature/75610846/

Last interview: 3/10/15 re: Importance of roads ballot proposal that went before voters on May 5.

Notes: Jason Cooper<http://wfnt.com/author/jcooper/> WFNT's News Director and host of Conversations with Jason Cooper. Interview will air during Jason's show from 11-noon.

Market: Flint and Saginaw Metro and online at http://wfnt.com/

Contact: Studio line: [redacted] Back-up: [redacted]

Jessica M. Brown
Communications Representative
Executive Office of Michigan Governor Rick Snyder
O: 517-335-6397
M: [redacted]
BrownJ53@michigan.gov

From: Brown, Jessica (GOV)
Sent: Tuesday, December 08, 2015 3:54 PM
To: Agen, Jarrod (GOV); Biehl, Laura (GOV)
Subject: RE: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

Jen/DHHS -- are working on the updated numbers regarding how many have been tested since the Oct. 1 action plan was implemented and current instructions for local residents regarding testing needs and filters. Sounds like the updated numbers is the hold-up. She'll send ASAP.

Brad/DEQ -- is sending some talking points to accompany the report. Should have this soon

---

From: Agen, Jarrod (GOV)
Sent: Tuesday, December 08, 2015 3:50 PM
To: Biehl, Laura (GOV) <BiehlL@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>
Subject: FW: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

This was last night's update

From: Wyant, Dan (DEQ)
Sent: Monday, December 07, 2015 3:34 PM
To: Scott, Allison (GOV) <scotta12@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Emmitt, Beth (GOV) <emmittb@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>
Cc: Wyant, Dan (DEQ) <WyantD@michigan.gov>; Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>; Edgerton, Shelly (LARA) <EdgertonS1@michigan.gov>; Dykema, Linda D. (DHHS) <DykemaL@michigan.gov>
Subject: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

- Flint Drinking Water Action Plan Update
- Document on What is a Part Per Billion.

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions. I have also added Richard Baird to this weekly email.

Thank you.

Dan Wyant
Director

From: Brown, Jessica (GOV)
Sent: Tuesday, December 08, 2015 5:04 PM
To: Bedan, Morgan (GOV); Agen, Jarrod (GOV)
Cc: Biehl, Laura (GOV)
Subject: RE: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: Flint Update for WFNT.docx

Morgan/Jarrod:

Attached is the update for Flint water and the WFNT interview. Includes testing numbers, steps families a can take to reduce lead exposure (i.e. free testing hotline, where to get filters, etc.). Also touches on the top three items and where they stand from the Governor's 10-point action plan.

From: Agen, Jarrod (GOV)
Sent: Tuesday, December 08, 2015 3:50 PM
To: Biehl, Laura (GOV) <BiehlL@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>
Subject: FW: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

This was last night's update

From: Wyant, Dan (DEQ)
Sent: Monday, December 07, 2015 3:34 PM
To: Scott, Allison (GOV) <scotta12@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Emmitt, Beth (GOV) <emmittb@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>
Cc: Wyant, Dan (DEQ) <WyantD@michigan.gov>; Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>; Edgerton, Shelly (LARA) <EdgertonS1@michigan.gov>; Dykema, Linda D. (DHHS) <DykemaL@michigan.gov>
Subject: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

- Flint Drinking Water Action Plan Update
- Document on What is a Part Per Billion.

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions. I have also added Richard Baird to this weekly email.

Thank you.

Dan Wyant

Director

Flint Fast Facts for WFNT interview

From: Comms – Jess Brown
DEQ – Brad Wurfel
DHHS – Jennifer Smith

Date: December 8, 2015

---

1. **How many people have been tested since Oct. 1 Flint Water Action Plan was implemented?**
    - Total of 1,836 tested, 39 elevated results
        - Children 0 – 5: 806 tested
        - Children 6 – 17: 525 tested
        - Adults: 505 tested

2. **What are the most recent recommendations to protect your family from lead exposure?**
    - Protecting your family from lead in the water:
        - Get your water tested for lead. It's free. Call [redacted] to learn more.
        - Use a water filter in your home. MDHHS continues to provide free water filters and replacement cartridges to Flint residents at four locations, including the MDHHS Flint offices and the Genesee County Community Action Resource Department.
        - Run only cold water through the filter.
        - If you do not have a water filter, use bottled water for drinking and mixing formula.
        - Use filtered or bottled water for drinking (including making coffee, drink mixes, juice, baby formula), and cooking (even if you boil the water, the lead will stay in the water and food).
        - If you have to use unfiltered water for drinking or cooking, run the tap for five minutes before using the water
    - Testing children:
        - Children who live in the city of Flint should be tested for lead exposure. This should be done as soon as possible.
        - The best place to get your child's blood lead test is your doctor's office. Contact your primary care provider.
        - Children can also get a free lead test at the Genesee County Health Department. For help with transportation, call 2-1-1.
    - Safe cleaning:
        - Safe cleaning is important. Keeping your home clean and safe from lead hazards will help to protect your family.
        - Buildings built before 1978 could have lead paint in them. Use wet paper towels to clean up paint chips and dust in these older buildings. Be sure to clean around windows, play areas, and floors.
        - Wash hands and toys often with soap and water.
        - You can use unfiltered tap water to wipe down countertops, mop floors, and wash clothes

The DEQ continues implementing the Governor's 10-point action plan to protect kids and families in Flint:

1. SCHOOLS TESTING

- The Governor's plan commits that DEQ will test water in every Flint school. To date, 8 schools in Flint have undergone a thorough inspection of their plumbing. Crews from the state are completing one to two schools each weekend.
- The story has been the same in each school inspected: lead exposure has been limited to old drinking fountains and faucets that should have been changed out years ago. When these fixtures are run for a couple minutes, lead presence drops to safe levels. If / when these fixtures are removed, it will address the lead exposure in schools.
- DEQ has not identified lead in the deeper plumbing of the schools. That's great news. It means fixing the issue will be comparatively inexpensive and quick.

2. COMMUNITY WATER TESTING
    - Since September, more than 500 residents have taken advantage of free home water sampling through the DEQ lab. Results are updated regularly on the DEQ web site, www.michigan.gov/FLINTWATER.
    - Residents are encouraged to continue taking advantage of this free service, but also are encouraged to get kids tested for blood lead levels.

3. LEAD SERVICE LINE REPLACEMENT

- The only way to remove the threat of lead exposure in drinking water is to remove sources like old faucets and lead service lines. The DEQ is working with the city to develop a long-term plan for removing the service lines. This is complicated because the service line is the portion that runs from the city system to the residence. It's the part that is mostly on private property and is generally considered the customer's responsibility.
- DEQ worked with Congressman Kildee to get EPA approval to use Revolving Loan Fund dollars to accomplish lead service line replacement.

OTHER VARIOUS ISSUES:

- Cong. Kildee has renewed calls for loan forgiveness in Flint. The city owes the state approximately $20.8 million for past loans, and they're scheduled to be paid off in 2024. DEQ cannot forgive old loans; we can, however, build loan forgiveness into new loans. Forgiveness is presently capped at 30 percent on new loans.
- City has called on DEQ to pay for fixes to the broader water distribution system on the idea that running river water through the system for 14 months ruined it. That's an unproven statement. The system has been in a serious state of disrepair for many years. We have not addressed this issue in the media. We are focused on the Governor's plan.
- Lawmakers have called for the state to create a fund to provide wraparound services for the (Kildee says 7,000) kids exposed to Flint water situation. Don't know where the 7,000 number came from. DHHS has numbers of kids who actually have elevated blood lead levels. Again, not an issue we've addressed or plan to.

From: Workman, Wayne (TREASURY)
Sent: Tuesday, December 15, 2015 10:32 AM
To: Khouri, Nick (TREASURY); Saxton, Thomas (Treasury); Muchmore, Dennis (GOV); Hollins, Harvey (GOV); Clement, Elizabeth (GOV); Stanton, Terry A. (Treasury); Sampson, Jeremy (TREASURY); Agen, Jarrod (GOV); Wurfel, Brad (DEQ)
Subject: FW: PRESS RELEASE- STATE OF EMERGENCY DECLARED
Attachments: STATE OF EMERGENCY DECLARATION.pdf

FYI

Wayne L. Workman
Deputy State Treasurer
Michigan Department of Treasury

From: Byrne, Randall (Treasury)
Sent: Tuesday, December 15, 2015 9:50 AM
To: Workman, Wayne (TREASURY) <WorkmanW@michigan.gov>; Schafer, Suzanne K. (Treasury) <Schafer57@michigan.gov>
Subject: FW: PRESS RELEASE- STATE OF EMERGENCY DECLARED

Wayne and Suzanne:

Mayor Weaver declared a State of Emergency in Flint last night. I have attached a copy for your review. Natasha tried to discourage her from proceeding on this. FYI, I am going to call the Mayor on the search. It doesn't sound like she wants to use Tom for the search.

Randy,

From: Natasha Henderson [mailto:nhenderson@cityofflint.com]
Sent: Tuesday, December 15, 2015 9:40 AM
To: Byrne, Randall (Treasury) <ByrneR1@michigan.gov>
Subject: Fwd: PRESS RELEASE- STATE OF EMERGENCY DECLARED

Thanks,

Natasha L. Henderson, City Administrator
1101 S. Saginaw St.
Flint, MI
Email: nhenderson@cityofflint.com
Phone: [redacted]
www.cityofflint.com

---------- Forwarded message ----------
From: "Sean Kammer" <skammer@cityofflint.com>
Date: Dec 14, 2015 10:32 PM
Subject: PRESS RELEASE- STATE OF EMERGENCY DECLARED

To:
Cc:

Mayor Karen Weaver Declares State of Emergency

Flint, MI – December 14, 2015 – Mayor Karen Weaver has declared a State of Emergency in response to a man-made disaster caused by the City switching to the Flint River as a water source. This switch has resulted in elevated lead levels in drinking water which prompted both the City and the County Health department to issue a health advisory earlier this year.

Mayor Weaver states that this was one of the things she had promised to do while campaigning for mayor.

Declaring an emergency intends to help raise awareness of the issue that the water is still not safe to drink and activates the City's Emergency Support Plan in order to respond to the crisis.

On October 16 of this year, the City switched back to the Detroit Water and Sewerage Department as the source of water, however lead levels remain well above the federal action level of 15 parts per billion in many homes. Residents are advised to continue using water filters while long term solutions are being developed.

The Mayor will hold a press conference about the State of Emergency on Tuesday, December 15 at 2pm at City Hall.

END

--
Sean Kenneth Kammer, MPA
Assistant to the City Administrator
City of Flint, Michigan
1101 S. Saginaw St.
Flint, MI 48502
[redacted]

Sean Kammer
810-237-2025
skammer@cityofflint.com

For Immediate Release

Mayor Karen Weaver Declares State of Emergency

Flint, MI – December 14, 2015 – Mayor Karen Weaver has declared a State of Emergency in response to a man-made disaster caused by the City switching to the Flint River as a water source. This switch has resulted in elevated lead levels in drinking water which prompted both the City and the County Health department to issue a health advisory earlier this year.

Mayor Weaver states that this was one of the things she had promised to do while campaigning for mayor.

Declaring an emergency intends to help raise awareness of the issue that the water is still not safe to drink and activates the City's Emergency Support Plan in order to respond to the crisis.

On October 16 of this year, the City switched back to the Detroit Water and Sewerage Department as the source of water, however lead levels remain well above the federal action level of 15 parts per billion in many homes. Residents are advised to continue using water filters while long term solutions are being developed.

The Mayor will hold a press conference about the State of Emergency on Tuesday, December 15 at 2pm at City Hall.

-END-

From: Brown, Jessica (GOV)
Sent: Friday, December 18, 2015 3:15 PM
To: Agen, Jarrod (GOV)
Subject: RE: 2014 Flint Water Clips
Attachments: Switch to Flint water coverage.docx

The attached includes 2013 clips -- there's not many that were searchable. Hope it's still somewhat helpful.

Have a happy holiday!

Jess

From: Brown, Jessica (GOV)
Sent: Thursday, December 17, 2015 1:10 PM
To: Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: RE: 2014 Flint Water Clips

FYI -- Alyssa and Alexa are searching for 2013 articles, we unfortunately don't have those from the newsrooms. That's from back before we retooled the process there. Should be able to send anything they find by EOB today.

From: Brown, Jessica (GOV)
Sent: Thursday, December 17, 2015 10:16 AM
To: Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: 2014 Flint Water Clips

Jarrod,

Attached are the clips I could find on the Flint water switch from March 1 – May 15 in 2014.

Couldn't find anything on the guy that wanted to bottle it and sell it. If you need more I can keep looking, let me know.

Jess

Switch TO Flint Water clips
From: Jess Brown – Comms.
Date: December 16, 2015

MARCH 2013

Flint City Council approves resolution to buy water from Karegnondi, state approval still needed (MLive 3/25/13)

Flint is one step closer to getting its water from Lake Huron as part of the Karegnondi Water Authority. The vote, approved 7-1 at the Flint City Council meeting Monday, March 25, may have set in motion the end to Flint paying to get its water from Detroit.

APRIL 2013

Flint residents seeking water bill relief may qualify for new poverty exemption (4/10/13)

hose in Flint struggling to pay their water bill may be eligible for some financial relief under a new program. The "water poverty exemption" was unveiled during emergency manager Ed Kurtz's news conference Wednesday, April 10. The city will waive the "ready to use" fee of $53.78 that is charged to every customer each month.

Flint ending Detroit water contract, DWSD looking at its options (Michigan Radio 4/16/13)

The city of Flint is dumping its contract with the Detroit Water and Sewerage Department. Flint emergency manager Ed Kurtz signed a contract today to get the city's water from a new pipeline that's being built from Lake Huron to Genesee County. Officials with Detroit's system made a final offer to try and keep Flint's business. But Kurtz says the numbers were "unreliable."

Flint, Genesee County officials huddle on Detroit water proposal (MLive)

Flint and county officials are meeting this morning to consider a proposal for future water purchases from the city of Detroit. And while they aren't passing judgment on what's been presented, Mayor Dayne Walling said today that "there does not appear to be a fixed rate" for the life of the 30-year contract Detroit is seeking.

JULY 2013

Flint to spend $171,000 for engineering to treat Flint River water while KWA pipeline is built (MLive – 7/8/13)

The city will spend $171,000 to get Flint's water plant up and running on a continual basis, with the potential to use the Flint River as the primary drinking water source for about two years while the Karegnondi Water Authority pipeline is built.

Flint River now an option drinking water following Detroit's termination of contract (MLive 7/23/13)

The Flint River was not a viable option to provide drinking water to city residents when the water relationship between Flint and Detroit was stable. But river water might be used temporarily as the city's water supply now that Flint signed an agreement with the Karegnondi Water Authority and will get up to 18 million gallons per day of raw water in 2016 from Lake Huron.

MARCH 2014

Flint will get drinking water from river next month as nearly 50-year-old pact with Detroit ends (MLive 3/4/14)

“I’m just happy that we are going to be using the Flint River for the next couple of years,” Nolden told The Flint Journal on Monday, March 4.

“I don’t think the administration was being forthcoming with information. I’m not against the KWA, but I just felt like the Flint River was a viable option.”

Groundbreaking set for water plant as Flint prepares to start taking drinking water from river (MLive 3/11/14)
City residents will begin drinking Flint River water in April, about a month after city officials host a groundbreaking ceremony celebrating continuing improvements at the city water treatment plant.

Flint residents should be drinking Flint River water by mid-April, officials say (MLive 3/12/14)
If all goes as planned, Flint residents will have Flint River water flowing from their taps by mid-April.

"This is an important day for us as we break ground on this new project in the city of Flint," said Flint Mayor Dayne Walling. "The river is an invaluable asset."

Flint City councilman calling for rate drop with switch to Flint River water (MLive 3/24/14)
City Councilman Wantwaz Davis wants to see a drop in what he calls unfair water rates.

APRIL 2014
Flint gets final permit approvals from state to use Flint River for drinking water (MLive 4/10/14)
The state of Michigan has issued the permits needed for the city to begin using the Flint River for drinking water, a major step toward ending water purchases from the city of Detroit as early as next week.

Flint water system study recommends water, sewer rate increases (MLive 4/10/14)
Water and sewer bills in Flint may have to increase more than $50 a year to pay for the services, a consultant's report says, because the rates customers are charged now aren't enough to support the city's water and sewer system.

Editorial: Switch to Flint River water represents new era in Flint (MLive 4/13/14)
When Flint water customers turn on their faucets on or about April 17 (if all goes according to plan), that water will originate from the Flint River.

“The changeover is expected to be virtually unnoticeable but it is important to note that this represents a new direction for Flint.”

Flint makes the switch to use river or drinking water (NBC 25 4/17/14)
It's the first time in nearly 50 years that water from the Flint River is being treated, and used as drinking water.

By the numbers: A look at some of the figures associated with Flint water switch (MLive – 4/18/15)
hen the valve to allow the Flint River to flow into the city’s water treatment plant opened on Thursday, April 17, it was marked as a historic day by city officials.

Closing the valve on history: Flint cuts water flow from Detroit after nearly 50 years (MLive 4/25/14 – This article has good photos)
It will take two days before Flint residents can taste history. On Friday, April 25, Mayor Dayne

Walling turned off the flow of water from Detroit and officially ended Flint's nearly 50-year dependence on its neighbor to the south.

"Water is an absolute vital service that most everyone takes for granted," Walling said. "It's a historic moment for the city of Flint to return to its roots and use our own river as our drinking water supply."

"There have been a lot of questions from our customers because this is such a major change," he said. "When the treated river water starts being pumped into the system, we move from plan to reality. The water quality speaks for itself." – Mayor Walling

"The Flint River is a different river than it was the last time we used it – that was pre-Clean Water Act," Flint Utilities Director Daughtery Johnson told The Flint Journal last week, adding that the city made two years' worth of improvements at the water plant in nine months. "It's a great system. It's a great asset the city has. Every drop we pull out, we're going to clean and put right back in the river.

Flint officially begins using Flint River water as temporary primary water source (WFNT 4/25/14)
On Friday, for the first time in fifty years, the City of Flint began using Flint River water as its primary water source for residents. The valve to the pipeline from Detroit, which had been providing Flint its water, was closed.

Flint Mayor Dayne Walling who was on hand for the event invited everyone to toast to Flint's water saying it's regular, good, pure drinking water that's right in our backyard and "this is the first step in the right direction for Flint, as we take this monumental step forward in controlling the future of our community's most precious resource."

Flint begins using own water supply (WNEM – 4/25/14)
The city will start processing Flint river water and officials hope it will be the source of water for the entire city. The Karegnondi water pipeline is scheduled to be completed in 2016.

"We've got the best technology for treating river water. It was there as a back-up, now we'll be able to use for a period of time as a primary supply," says Flint Mayor Dayne Walling. "This is a historic step for us. It's the day where we actually turn off the Detroit system and turn on the treated Flint River water going into our drinking water supply."

No. Average residents won't notice any difference. The system, as it's designed, has very complex treatment standards and systems built into it. As we've talked before, the plant went through an extensive upgrade in the early 2000s," says Flint Utilities Administrator Daugherty Johnson.

Flint plans to shut off water pipeline from Detroit today (Michigan Radio 4/25/14)
After a brief delay, the city of Flint will finally start getting its drinking water exclusively from the Flint River starting this afternoon.

Flint mayor takes to Twitter to see how residents like Flint River water (MLive 4/28/15)
Flint Mayor Dayne Walling is asking people to rate the quality of the city's new water supply.

"Everything is going fine on the system," said city Spokesman Jason Lorenz. "The water is of great quality." Flint will use the river until the KWA builds its pipeline to Genesee County. The $274 million project is expected to be complete sometime in 2016. "I'm a resident – I can personally say the water quality didn't change at all," Lorenz said. "I didn't notice any difference."

MAY 2014

How safe is your tap water? (WNEM 5/16/14)

We always assume the water coming out of our faucet is safe. But how do we really know?

From: [redacted]
Sent: Saturday, December 19, 2015 7:29 AM
To: nkaffer@freepress.com; rmhuschka@freepress.com
Cc: Agen, Jarrod (GOV); Scott, Allison (GOV); cstokes@wxyz.com; devin scillian; john.stoll@wsj.com
Subject: RE: When did state know kids in Flint were lead poisoned?

From: [redacted]
To: nkaffer@freepress.com; pegan@freepress.com
CC: rmhuschka@freepress.com; nbomey@freepress.com; riley@freepress.com; shenderson@freepress.com; cstokes@wxyz.com; kvoet@wdiv.com; bdickerson@freepress.com; bmccollum@freepress.com; john.stoll@wsj.com; bsnavely@freepress.com; devins@wdiv.com; guyg@wdiv.com; nwarikoo@freepress.com
Subject: RE: When did state know kids in Flint were lead poisoned?
Date: Sat, 19 Dec 2015 07:02:53 -0500

Detroit Free Press,
Nancy Kaffer;

Re: When did state know kids in Flint were lead poisoned?

It's good that MSNBC show host Rachael Maddow dedicated this first 2 segments of her show last night on this terrible and dangerous Flint water situation.

Gov. Snyder is a lying sonofabitches along with is his soon to be former chief of staff who probably had a lot of influence on Snyder is signing off on the deal.

Kudos to Paul Egan and yourself for previously reporting "on March 25, 2013, then-state Treasurer Andy Dillon and Gov. Rick Snyder's chief of staff, Dennis Muchmore, held a telephone conversation about "Flint water supply alternatives," according to records obtained by the Free Press under FOIA."... " The decision to draw water from the Flint River starting in April 2014, combined with a failure by the state Department of Environmental Quality to require treatment to soften the water to reduce corrosion and the leaching of lead from delivery pipes and other failures related to water testing, ultimately proved disastrous." That spoke volumes!

Snyder's buddy Steve Arwood over at MEDC isn't no better in not releasing the tax credit information on GM, this is a government of lies and secrecy that tanks Michigan taxpayers every day we get up.

Why isn't reporter Nathan Bomey right on Mr. Arwood and Mary Barra's butt in demanding the tax credit figures be released? You can't be afraid to ask question on a matter that concerns public policy. This is an important issue and Bomey should be working on investigating GM as hard as you are on the Flint water crisis.

Furthermore, Snyder absolutely knew this was happening in Flint back in the spring and summer and he soon realized if he were to consider any presidential or VP nomination bid and when this story became public it would most certainly tarnished his name in the national spotlight and be a drag the Republican party chances to regain control of The White House.

As you know I have my own bad water concern over at GM and just received an email from the assistant director of the DEQ on this matter.I thought I'd share, maybe the Free Press can follow up on this matter as well because GM employees were again informed on 12/14/15 not to use or drink the tap water in Building 7000. Many colleagues are highly alarmed about this situation:

From: SygoJ@michigan.gov
To: [redacted]
CC: EisnerJ@michigan.gov; scotta12@michigan.gov; muchmored@michigan.gov; MurrayD1@michigan.gov; pegan@freepress.com; john.stoll@wsj.com; cstokes@wxyz.com; lberman@detnews.com; WyantD@michigan.gov; THELENM2@michigan.gov; WurfelB@michigan.gov; BENZIER@michigan.gov; DONALDSONK@michigan.gov; SHALERK@michigan.gov; FeuersteinH@michigan.gov; DEVEREAUXT@michigan.gov
Subject: RE: GM Tech Center Build 7000 water main break health concern
Date: Thu, 17 Dec 2015 19:42:50 +0000

Dear [redacted]

Thank you for your November 22 and November 24, 2015, e-mails to Director Dan Wyant, Department of Environmental Quality (DEQ), concerning the General Motors (GM) Tech Center drinking water issue. Director Wyant has referred your e-mails to me for response.

As you may know, the DEQ regulates public water supplies in accordance with the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). Public water supplies, like the city of Warren, are subject to regulation by the DEQ on all publicly-owned and maintained facilities. The city of Warren is responsible for water main leading up to the perimeter of the GM Tech Center property. The water system within the GM Tech Center property boundary is not publicly-owned or maintained and is considered "customer site piping" as defined in Section 325.1002(f) of Act 399. Customer site piping is specifically exempted from regulation as a public water supply under Act 399. Similar to internal plumbing, responsibility for customer site piping lies with the owner of the property or facility. In this case, responsibility lies with GM.

Your November 22 e-mail indicated that GM provided employees with bottled water for consumption during repair activities. Additional concerns pertaining to adequate sanitary facilities and access to restrooms should be directed to the Department of Licensing and Regulatory Affairs' Michigan Occupational Safety and Health Administration (MIOSHA). Concerns related to food service should be directed to the Macomb County Health Department. Following are links to the MIOSHA and the Macomb County Health Department Web sites:

http://www.michigan.gov/lara/0,4601,7-154-11407---,00.html

http://health.macombgov.org

Should you require further information concerning public water supply regulation, please contact Kristina Donaldson, Southeast Michigan District Supervisor, Field Operations Section, Office of

Drinking Water and Municipal Assistance (ODWMA), at [redacted] donaldsonk@michigan.gov; or DEQ, 27700 Donald Court, Warren, Michigan 48092.

Jim Sygo
Chief Deputy Director
and Interim Chief, ODWMA
Department of Environmental Quality

From: [redacted]
Sent: Sunday, November 22, 2015 7:22 AM
To: Wyant, Dan (DEQ)
Cc: Eisner, Jennifer (DHHS); Scott, Allison (GOV); Wurfel, Sara (GOV); Muchmore, Dennis (GOV); pegan@freepress.com; john.stoll@wsj.com; cstokes@wxyz.com; lberman@detnews.com
Subject: GM Tech Center Build 7000 water main break health concern

State of Michigan,
Department of Environmental Quality,
Director Dan Wyant;

Mr. Wyant,

Considering that the Detroit print media is reporting that MLK H.S. in Detroit will be closed Monday 11/23/15 due to a water main leak, why is it that Building 7000 at the GM Tech Center experienced a water main break on Friday Nov. 20, 2015 and remained opened for the entire day and the +225 GM/Aerotek employees assigned to the 3rd floor were required to work with no city water to use for the toilets breaks.

The employer GM/Aerotek did provide cases of brand name bottled water to use, but many GM/Aerotek workers remained highly unsettled and were concerned about possible negative health effects and the potential to become ill with no adequate amount of water to use on restroom breaks. There are an number of pregnant women working on this floor.

Wouldn't the GM Tech Center building 7000 be required to undergo testing by the City of Warren Detroit Water and Sewerage Department to determine if the building is safe and go through the process of ensuring the water feeding into the building meets quality standards?

Please investigate, find out if requiring GM /Aerotek employees to remain and work in a building with no water to use for restroom breaks is legal or did the employer GM/Aerotek not follow protocol and violate the law and put GM /Aerotek employees at-risk of a health danger.

Best regards,
[redacted]

cc Jennifer Eisner-State of Michigan Dept. of Health and Human Services eisnerj@michigan.gov

From: [redacted]
Sent: Saturday, December 19, 2015 7:34 AM
To: pegan@freepress.com
Cc: kgray@freepress.com; Agen, Jarrod (GOV); Scott, Allison (GOV)
Subject: RE: When did state know kids in Flint were lead poisoned?

From: [redacted]
To: nkaffer@freepress.com; rmhuschka@freepress.com
CC: agenj@michigan.gov; scotta12@michigan.gov; cstokes@wxyz.com; devins@wdiv.com; john.stoll@wsj.com
Subject: RE: When did state know kids in Flint were lead poisoned?
Date: Sat, 19 Dec 2015 07:28:39 -0500

Detroit Free Press,
Nancy Kaffer and Paul Egen,

Re: When did state know kids in Flint were lead poisoned?

It's good that MSNBC show host Rachael Maddow dedicated this first 2 segments of her show last night on this terrible and dangerous Flint water situation.

Gov. Snyder is a lying sonofabitches along with is his soon to be former chief of staff who probably had a lot of influence on Snyder is signing off on the deal.

Kudos to Paul Egan and yourself for previously reporting "on March 25, 2013, then-state Treasurer Andy Dillon and Gov. Rick Snyder's chief of staff, Dennis Muchmore, held a telephone conversation about "Flint water supply alternatives," according to records obtained by the Free Press under FOIA."... " The decision to draw water from the Flint River starting in April 2014, combined with a failure by the state Department of Environmental Quality to require treatment to soften the water to reduce corrosion and the leaching of lead from delivery pipes and other failures related to water testing, ultimately proved disastrous." That spoke volumes!

Snyder's buddy Steve Arwood over at MEDC isn't no better in not releasing the tax credit information on GM, this is a government of lies and secrecy that tanks Michigan taxpayers every day we get up.

Why isn't reporter Nathan Bomey right on Mr. Arwood and Mary Barra's butt in demanding the tax credit figures be released? You can't be afraid to ask question on a matter that concerns public policy. This is an important issue and Bomey should be working on investigating GM as hard as you are on the Flint water crisis.

Furthermore, Snyder absolutely knew this was happening in Flint back in the spring and summer and he soon

realized if he were to consider any presidential or VP nomination bid and when this story became public it would most certainly tarnished his name in the national spotlight and be a drag the Republican party chances to regain control of The White House.

As you know I have my own bad water concern over at GM and just received an email from the assistant director of the DEQ on this matter.I thought I'd share, maybe the Free Press can follow up on this matter as well because GM employees were again informed on 12/14/15 not to use or drink the tap water in Building 7000. Many colleagues are highly alarmed about this situation:

From: SygoJ@michigan.gov
To: [redacted]
CC: EisnerJ@michigan.gov; scotta12@michigan.gov; muchmored@michigan.gov; MurrayD1@michigan.gov; pegan@freepress.com; john.stoll@wsj.com; cstokes@wxyz.com; lberman@detnews.com; WyantD@michigan.gov; THELENM2@michigan.gov; WurfelB@michigan.gov; BENZIER@michigan.gov; DONALDSONK@michigan.gov; SHALERK@michigan.gov; FeuersteinH@michigan.gov; DEVEREAUXT@michigan.gov
Subject: RE: GM Tech Center Build 7000 water main break health concern
Date: Thu, 17 Dec 2015 19:42:50 +0000

Dear [redacted]

Thank you for your November 22 and November 24, 2015, e-mails to Director Dan Wyant, Department of Environmental Quality (DEQ), concerning the General Motors (GM) Tech Center drinking water issue. Director Wyant has referred your e-mails to me for response.

As you may know, the DEQ regulates public water supplies in accordance with the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). Public water supplies, like the city of Warren, are subject to regulation by the DEQ on all publicly-owned and maintained facilities. The city of Warren is responsible for water main leading up to the perimeter of the GM Tech Center property. The water system within the GM Tech Center property boundary is not publicly-owned or maintained and is considered "customer site piping" as defined in Section 325.1002(f) of Act 399. Customer site piping is specifically exempted from regulation as a public water supply under Act 399. Similar to internal plumbing, responsibility for customer site piping lies with the owner of the property or facility. In this case, responsibility lies with GM.

Your November 22 e-mail indicated that GM provided employees with bottled water for consumption during repair activities. Additional concerns pertaining to adequate sanitary facilities and access to restrooms should be directed to the Department of Licensing and Regulatory Affairs' Michigan Occupational Safety and Health Administration (MIOSHA). Concerns related to food service should be directed to the Macomb County Health Department. Following are links to the MIOSHA and the Macomb County Health Department Web sites:

http://www.michigan.gov/lara/0,4601,7-154-11407---,00.html

http://health.macombgov.org

Should you require further information concerning public water supply regulation, please contact Kristina Donaldson, Southeast Michigan District Supervisor, Field Operations Section, Office of

Drinking Water and Municipal Assistance (ODWMA), at [redacted]donaldsonk@michigan.gov; or DEQ, 27700 Donald Court, Warren, Michigan 48092.

Jim Sygo
Chief Deputy Director
and Interim Chief, ODWMA
Department of Environmental Quality

From: [redacted]
Sent: Sunday, November 22, 2015 7:22 AM
To: Wyant, Dan (DEQ)
Cc: Eisner, Jennifer (DHHS); Scott, Allison (GOV); Wurfel, Sara (GOV); Muchmore, Dennis (GOV); pegan@freepress.com; john.stoll@wsj.com; cstokes@wxyz.com; lberman@detnews.com
Subject: GM Tech Center Build 7000 water main break health concern

State of Michigan,
Department of Environmental Quality,
Director Dan Wyant;

Mr. Wyant,

Considering that the Detroit print media is reporting that MLK H.S. in Detroit will be closed Monday 11/23/15 due to a water main leak, why is it that Building 7000 at the GM Tech Center experienced a water main break on Friday Nov. 20, 2015 and remained opened for the entire day and the +225 GM/Aerotek employees assigned to the 3rd floor were required to work with no city water to use for the toilets breaks.

The employer GM/Aerotek did provide cases of brand name bottled water to use, but many GM/Aerotek workers remained highly unsettled and were concerned about possible negative health effects and the potential to become ill with no adequate amount of water to use on restroom breaks. There are an number of pregnant women working on this floor.

Wouldn't the GM Tech Center building 7000 be required to undergo testing by the City of Warren Detroit Water and Sewerage Department to determine if the building is safe and go through the process of ensuring the water feeding into the building meets quality standards?

Please investigate, find out if requiring GM /Aerotek employees to remain and work in a building with no water to use for restroom breaks is legal or did the employer GM/Aerotek not follow protocol and violate the law and put GM /Aerotek employees at-risk of a health danger.

Best regards,
[redacted]

cc Jennifer Eisner-State of Michigan Dept. of Health and Human Services eisnerj@michigan.gov

From: [redacted]
Sent: Saturday, December 19, 2015 7:55 AM
To: miweek@dptv.org
Cc: Agen, Jarrod (GOV); editor@mihomepaper.com
Subject: RE: When did state know kids in Flint were lead poisoned?

WDET Channel 56,
MiWeek,
Ms. Christy MacDonald,

Re: Flint Water crisis

It's good that MSNBC show host Rachael Maddow dedicated this first 2 segments of her show on Fri. 12/18/15 in exposing this terrible and dangerous Flint water situation. You should be proud to be part of the segment shown questioning Gov. Snyder on this terrible crisis that have endangered the lives of so many.

Gov. Snyder is a lying sonofabitches along with is his soon to be former chief of staff and former Treasury chief Andy Dillon who probably had a lot of influence on Snyder is signing off on the deal.

Kudos to MiWeek for keeping on top of this story and to your MiWeek colleague Stephen Henderson and his Detroit Free Press colleagues for previously reporting on this issue.

Furthermore, Snyder's good time pal Steve Arwood over at MEDC isn't no better in not releasing the tax credit information on GM because it is so-called "proprietary information". That boloney because it is taxpayer money he is charged in handling. I feel the Snyder regime is a government of lies and secrecy that tanks Michigan taxpayers every day we get up.

The GM tax credit issue is an important public-policy concern that MiWeek should be investigating as well.

Anyone who follows politics probably figured out a long time ago that Gov. Snyder knew that the Flint water pipes were releasing lead back in the spring and summer and he soon realized if he were to consider any presidential or VP nomination bid and when this story became public it would most certainly tarnished his name in the national spotlight and be a drag the Republican party chances to regain control of The White House.

I would also like to inform MiWeek that I have my own bad water concern over at GM and just received an email from the assistant director of the DEQ on this matter.I thought I'd share and MiWeek can follow up on this matter as well because GM employees were again informed on 12/14/15 not to use or drink the tap water in Building 7000. Many colleagues are highly alarmed about this situation:

From: SygoJ@michigan.gov
To: [redacted]
CC: EisnerJ@michigan.gov; scotta12@michigan.gov; muchmored@michigan.gov; MurrayD1@michigan.gov; pegan@freepress.com; john.stoll@wsj.com; cstokes@wxyz.com; lberman@detnews.com; WyantD@michigan.gov; THELENM2@michigan.gov; WurfelB@michigan.gov; BENZIER@michigan.gov;

DONALDSONK@michigan.gov; SHALERK@michigan.gov; FeuersteinH@michigan.gov; DEVEREAUXT@michigan.gov
Subject: RE: GM Tech Center Build 7000 water main break health concern
Date: Thu, 17 Dec 2015 19:42:50 +0000

Dear [redacted]

Thank you for your November 22 and November 24, 2015, e-mails to Director Dan Wyant, Department of Environmental Quality (DEQ), concerning the General Motors (GM) Tech Center drinking water issue. Director Wyant has referred your e-mails to me for response.

As you may know, the DEQ regulates public water supplies in accordance with the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). Public water supplies, like the city of Warren, are subject to regulation by the DEQ on all publicly-owned and maintained facilities. The city of Warren is responsible for water main leading up to the perimeter of the GM Tech Center property. The water system within the GM Tech Center property boundary is not publicly-owned or maintained and is considered "customer site piping" as defined in Section 325.1002(f) of Act 399. Customer site piping is specifically exempted from regulation as a public water supply under Act 399. Similar to internal plumbing, responsibility for customer site piping lies with the owner of the property or facility. In this case, responsibility lies with GM.

Your November 22 e-mail indicated that GM provided employees with bottled water for consumption during repair activities. Additional concerns pertaining to adequate sanitary facilities and access to restrooms should be directed to the Department of Licensing and Regulatory Affairs' Michigan Occupational Safety and Health Administration (MIOSHA). Concerns related to food service should be directed to the Macomb County Health Department. Following are links to the MIOSHA and the Macomb County Health Department Web sites:

http://www.michigan.gov/lara/0,4601,7-154-11407---,00.html

http://health.macombgov.org

Should you require further information concerning public water supply regulation, please contact Kristina Donaldson, Southeast Michigan District Supervisor, Field Operations Section, Office of Drinking Water and Municipal Assistance (ODWMA), at [redacted] donaldsonk@michigan.gov; or DEQ, 27700 Donald Court, Warren, Michigan 48092.

Jim Sygo
Chief Deputy Director
and Interim Chief, ODWMA
Department of Environmental Quality

From: [redacted]
Sent: Sunday, November 22, 2015 7:22 AM
To: Wyant, Dan (DEQ)
Cc: Eisner, Jennifer (DHHS); Scott, Allison (GOV); Wurfel, Sara (GOV); Muchmore, Dennis (GOV); pegan@freepress.com; john.stoll@wsj.com; cstokes@wxyz.com; lberman@detnews.com
Subject: GM Tech Center Build 7000 water main break health concern

State of Michigan,
Department of Environmental Quality,
Director Dan Wyant;

Mr. Wyant,

Considering that the Detroit print media is reporting that MLK H.S. in Detroit will be closed Monday 11/23/15 due to a water main leak, why is it that Building 7000 at the GM Tech Center experienced a water main break on Friday Nov. 20, 2015 and remained opened for the entire day and the +225 GM/Aerotek employees assigned to the 3rd floor were required to work with no city water to use for the toilets breaks.

The employer GM/Aerotek did provide cases of brand name bottled water to use, but many GM/Aerotek workers remained highly unsettled and were concerned about possible negative health effects and the potential to become ill with no adequate amount of water to use on restroom breaks. There are an number of pregnant women working on this floor.

Wouldn't the GM Tech Center building 7000 be required to undergo testing by the City of Warren Detroit Water and Sewerage Department to determine if the building is safe and go through the process of ensuring the water feeding into the building meets quality standards?

Please investigate, find out if requiring GM /Aerotek employees to remain and work in a building with no water to use for restroom breaks is legal or did the employer GM/Aerotek not follow protocol and violate the law and put GM /Aerotek employees at-risk of a health danger.

Best regards,

[redacted]

cc Jennifer Eisner-State of Michigan Dept. of Health and Human Services eisnerj@michigan.gov

[redacted]

From: Baird, Richard (GOV)
Sent: Monday, December 28, 2015 10:42 PM
To: Agen, Jarrod (GOV)
Subject: RE: Flint letter

I meant to eliminate "many" in the first para. Otherwise looks good to me.

Sent from my Verizon Wireless 4G LTE DROID
On Dec 28, 2015 10:36 PM, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov> wrote:

10:30 am tomorrow works.

Draft statement below. Language regarding Dan is included, pending our discussion tomorrow.

DRAFT STATEMENT

"When I became aware that the city of Flint's water showed elevated lead levels and that many the state's handling of the situation was being questioned, I appointed an independent task force to investigate how the situation evolved and identify missteps and areas for improvement.

"The task force has done an exceptional job and has been relentless in focusing on the facts. It so far has reviewed stacks of documents and interviewed scores of Flint, Genesee County, state and federal officials, and keeping me and my team apprised of its progress.

"Although the task force's final report is not yet completed, it has made me aware of some interim findings and corrective steps that I have decided to take immediately to restore trust in how the state keeps its citizens safe and informed.

"No matter what the testing requirements were, they were not enough to prevent this situation. Moving forward we will listen intently and be more responsive to community needs.

"I am accepting the resignation of MDEQ Director Dan Wyant, and have made other personnel changes to address problems cited by the task force.

"Changes in leadership and staff are not enough. I understand there can be disagreements within the scientific community. That is why I have directed both the departments of Environmental Quality and Health and Human Services to invite every external scientist who has worked on the Flint water issue to be our partners in helping us improve Flint water. Let's share research on water and blood lead level testing to arrive at accurate and mutually supported conclusions. Together, we should work to affirm that we're using the very best testing protocols to ensure Flint residents have safe drinking water and that we're doing proper monitoring and remediation of health impacts over the short and long term.

"I want the Flint community to know how very sorry I am that this has happened. And I want all Michigan citizens to know that we will learn from this experience, because Flint is not the only city that has an aging infrastructure containing lead lines.

"I'm taking the actions today to ensure a culture of openness and trust. We've already allocated $10 million to test the water, distribute water filters, and help in other ways. Last week, I called Flint Mayor Karen Weaver, and we're going to meet soon to discuss other ways the state can offer assistance.

"These are only initial steps - we fully expect to take more actions following the recommendations of our task force. When it comes to matters of health and quality of life, we're committed to doing everything we can to protect the well-being of our citizens."

From: Baird, Richard (GOV)
Sent: Monday, December 28, 2015 10:24 PM
To: Snyder, Rick (GOV) <[redacted]
Cc: Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Scott, Allison (GOV) <scotta12@michigan.gov>
Subject: Re: Flint letter

10:30 good by me.

Sent from my Verizon Wireless 4G LTE DROID

On Dec 28, 2015 10:14 PM, "Snyder, Rick (GOV)" <[redacted] wrote:

If it works, let's do a call at 10:30 tomorrow. Also, please send me the latest version of my proposed statement.

Thanks

Rick

Sent from my iPad

On Dec 28, 2015, at 8:24 PM, Agen, Jarrod (GOV) <Agenj@michigan.gov> wrote:

Governor,

Attached is a letter from the Flint Water Task Force which will be formally sent to you tomorrow. The Task Force then plans to release this letter publicly on Wednesday morning.

You will see the letter is harsh against DEQ.

Rich, Redford, Harvey, Meegan, and myself all just gathered on a conference call to discuss our upcoming actions regarding Flint. While we don't think this letter should change any of our actions, we agreed we may need to accelerate some of the structural changes at DEQ.

Our suggestions:

1) **Make structural changes at DEQ as early as tomorrow:** The recommendations in this letter suggest profound change at DEQ and openly criticize Director Wyant. If this is the path that the Task Force is on, it is best to make changes at DEQ sooner rather than later. That likely means accepting Dan's resignation. It also means moving up the termination of the 3 DEQ personal previously planned for Jan 4 to tomorrow.

2) **Still do statement tomorrow from you regarding Flint:** This statement will be slightly revised by Meegan to acknowledge we received feedback from the Task Force and reiterate that we created the Task Force with the intent of getting honest independent feedback. More importantly, if we are making changes at DEQ, they can also be announced in the statement.

If you have a moment, it is probably best that Rich & I discuss with you over the phone tomorrow morning. But I wanted to get you some of our thinking tonight.

Let me know if there is a good time to discuss tomorrow.

Thanks

Jarrod

<Snyder Letter EPR v5-Clean.docx>

From: Holland, Meegan (GOV)
Sent: Tuesday, December 29, 2015 5:36 PM
To: Baird, Richard (GOV); Agen, Jarrod (GOV)
Subject: RE: Letter of resignation -- Wurfel

The Detroit News has Brad resigning in this story. The story also quotes Edwards and Dr. Mona, saying Dan shouldn't necessarily have been fired. (!)

Ananich criticizes the culture of the DEQ, and very much echoes the task force report.

- Meegan

From: Baird, Richard (GOV)
Sent: Tuesday, December 29, 2015 5:30 PM
To: Holland, Meegan (GOV) <HollandM2@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: FW: Letter of resignation -- Wurfel

From: Wurfel, Brad (DEQ)
Sent: Tuesday, December 29, 2015 5:15 PM
To: Winters, Jan (MCSC)
Cc: Sygo, Jim (DEQ); Eyer, Tamara (DEQ); Thelen, Mary Beth (DEQ); Baird, Richard (GOV)
Subject: Letter of resignation -- Wurfel

Ms. Winters,
It has been an honor and a privilege to serve the Michigan Department of Environmental Quality as Communications Director for the past five years.
I'm quite proud of countless accomplishments this team has achieved.

However, I am tendering my two weeks' notice, effective January 16, 2016.

Thank you all for a great run. Best wishes in the new year.
b

Brad Wurfel
Communications Director,
Michigan Department of Environmental Quality
wurfelb@michigan.gov
[redacted]

From: Agen, Jarrod (GOV)
Sent: Thursday, October 01, 2015 9:46 AM
To: Wurfel, Sara (GOV); Clement, Elizabeth (GOV)
Subject: Flint

Are we good on plan to discuss lead levels tomorrow?
If you need me to chime in, let me know....

If you have any messaging that you want G to review on the plane, just shoot it over.

From: Agen, Jarrod (GOV)
Sent: Thursday, October 01, 2015 10:47 AM
To: Wurfel, Sara (GOV)
Cc: Clement, Elizabeth (GOV)
Subject: Re: Flint

Question from the G:
Can we definitively say that no WATER tests have ever shown levels that are above the Federal/EPA standards?

I think Dan alluded to this in the meeting when he said we were testing at 11 and the federal mark is 15 or above. But Gov wants to know if we can make the claim above.

> On Oct 1, 2015, at 9:06 AM, Wurfel, Sara (GOV) <Wurfels@michigan.gov> wrote:
>
> Not yet, but hopefully will be. Think got Dennis and Harvey on same page about tying in other HHS/Hurley news to part of action plan on Friday's announcement. DEQ and DHHS teams trying to finalize policy and messaging drafts now for review. 1:30 p.m. mtg to walk through details and see where at.
>
> Also - heads up and FYI - we just had a major protocol and near security breach with WJRT TV 12 getting up to 2nd floor without our knowledge or escort. Apparently DK Security and other EO team though they were part of pastors meeting happening. (Apparently invited by the pastors). That's caused some excitement have been dealing with. They're on our comms floor now - doing a stand up with them and letting them catch pastors after meeting outside.
>
> -----Original Message-----
> From: Agen, Jarrod (GOV)
> Sent: Thursday, October 01, 2015 9:46 AM
> To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>
> Subject: Flint
>
> Are we good on plan to discuss lead levels tomorrow?
> If you need me to chime in, let me know....
>
> If you have any messaging that you want G to review on the plane, just shoot it over.
>
>

From: Agen, Jarrod (GOV)
Sent: Thursday, October 01, 2015 7:02 PM
To: Clement, Elizabeth (GOV); Muchmore, Dennis (GOV)
Subject: Fwd: Flint

I don't want to just forward this email to Wyant, but Governor just ask to make sure that he had all this info.

Does Dan have all this?

Begin forwarded message:

> **From:** "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>
> **Date:** October 1, 2015 at 1:30:40 PM PDT
> **To:** "Snyder, Rick (GOV)" [redacted]
> **Cc:** "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Posthumus, Dick (GOV)" <Posthumusd@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Hollins, Harvey (GOV)" <hollinsh@michigan.gov>
> **Subject: Flint**
>
> I talked with Dayne Walling at length today a few minutes ago, and Harvey and I had separate meetings with one of the Flint minister groups and then Rep. Neely. Our conversations were cordial for the most with the normal concerns being expressed. I told Rep. Neely that I felt he hadn't gotten enough respect and insight into our thoughts on this and we expanded our backgrounder for him and he was very appreciative. He actually cancelled a Black Caucus meeting called for today on this due to Harvey and our meeting. I have Dan and Nick calling him just to update.
>
> More importantly, we have the proposal back from DWSD for a reconnect:
>
> 1. Short term reconnect is ok until KWA starts operating;
> 2. No reconnect fee and immediate reconnect;
> 3. Expenses incurred at actual cost although no estimate at this time
> 4. A fixed monthly rate of $662,100 + a commodity rate of $8.93mcf for current 15-16 FY;
> 5. Rate is over and above water sales to Genesee County Drain Commission;
> 6. A water wholesale adjustment;
> 7. Only extends to Flint;
> 8. Rates for 16-17 FY would be the same as other customers.
>
> Mayor Duggan is more than willing to lend his support.
>
> I'm asking Saxton for a ballpark calculation. We would have to find them the money for this reconnect, but Dayne is more than open (as is Ananich to a lesser degree) to finding some revolving fund that they would repay perhaps on an extended basis or maybe using some guarantee to reduce the borrowing costs.

From: Agen, Jarrod (GOV)
Sent: Tuesday, October 06, 2015 8:20 AM
To: Scott, Allison (GOV)
Cc: Clement, Elizabeth (GOV); Muchmore, Dennis (GOV)
Subject: Re: Flint Water updates

Update from Dan in briefing. Comms to also send update for briefing on stories or announcements upcoming. But Dan will have most accurate testing and analysis details to report.

> On Oct 6, 2015, at 8:14 AM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:
>
> What is most effective accurate rout? Dan provided update for briefing each day or does Comms shop speak to DEQ Comms and provide?
>
> Sent from my iPhone
>
>> On Oct 6, 2015, at 8:05 AM, Snyder, Rick (GOV) <[redacted] wrote:
>>
>> We need a better update system re Flint Water.
>>
>> I saw in the press this am that DHHS announced yesterday that water filters would start being given out today. This should have come internally with more detail. I had press questions last night.
>>
>> Overall, we should have a daily report on Flint until our recommendations are fully implemented.
>>
>> For example:
>> 1. What are the water test results from the public schools?
>> 2. How many free test have been requested? How many have been done? How many remain and how long have they been waiting? What are the results - no lead, lead consistent with history, higher levels?
>> 3. How many filters have been distributed? How many unfulfilled requests?
>> 4. New blood test results? Especially in the two zip codes.
>> 5. Analysis of tech advisory group
>> 6. Analysis of the GLWA vs. Flint River vs. KWA.
>>
>> Thanks
>> Rick
>>
>> Sent from my iPad

From: Agen, Jarrod (GOV)
Sent: Tuesday, October 06, 2015 5:09 PM
To: Murray, David (GOV); Wurfel, Sara (GOV)
Subject: Fwd: Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

This may be helpful in crafting materials.

Begin forwarded message:

From: "Wyant, Dan (DEQ)" <WyantD@michigan.gov>
Date: October 6, 2015 at 5:05:10 PM EDT
To: "Scott, Allison (GOV)" <scotta12@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Dickinson, Sarah (GOV)" <DickinsonS@michigan.gov>
Subject: Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

The Flint Drinking Water Action Plan was announced on October 2, 2015. It included the following:

- Testing in Flint public schools immediately
- Offered free water testing to Flint residents
- Provided free water filters to residents with concerns or who are included in state assistance programs
- Expanding health exposure testing of individual homes
- Accelerating corrosion controls in the Flint drinking water system
- Accelerating water system improvements to address replacing lead service lines
- Expediting the completion of the Karegnondi Water Authority pipeline
- Expanding a Safe Drinking Water Technical Advisory Committee
- Named Dr. Eden Wells as the Flint drinking water public health advisor
- Boosted a comprehensive lead education program

Testing in Flint Public Schools Immediately

Samples were taken on October 2 and were received at DEQ laboratory over the weekend. Test results to date indicate 37 samples tested, 4 of which exceeded a federal action level, and 1 of those 4 was a significant outlier. We will be compiling detailed information about which schools and area codes the test results came from and will be providing that information in our next update.

We have met with DHHS, and we are working on developing response protocols, a communications plan, and guidance for schools when this data is reported.

Offered Free Water Testing to Flint Residents

We have received 4 sets of samples from Flint that represent individual residents. We will be compiling the total number and the results of those samples and reporting in a future report.

Provided Free Water Filters to Residents with Concerns or Who are Included in State Assistance Programs

DHHS held organizational meetings in Flint on October 5, and filter distribution by DHHS started on October 6. Nick Lyon in DHHS is taking the lead in filter distribution.

Expanding Health Exposure Testing of Individual Homes

Dr. Wells and Dan Wyant have been in conversations about a protocol for exposure testing. Dr. Wells will take the lead on developing the protocol.

Accelerating Corrosion Controls in the Flint Drinking Water System

A conference call was held with U.S. EPA Regional Administrator Susan Hedman and national corrosion control experts. We asked two questions:

1. **Which is a safer water source – DWSD or Flint River?**
2. **If you don't have an opinion on the safer source, what criteria should we use for an evaluation?**

EPA staff would not commit to a preference, but their evaluation of the criteria clearly lead to the conclusion that DWSD was a safer water source. EPA committed to submitting technical assistance to the Safe Drinking Water Technical Advisory Committee (Advisory Committee) meeting, which will be held on October 7 at 2:00 p.m. in Flint City Hall.

DEQ met with the Flint Mayor, the city manager, and their water staff. Flint agreed to expediting corrosion controls. We discussed the agenda for the Advisory Committee meeting. The Advisory Committee will be asked to evaluate two respective water sources at their Wednesday meeting.

We expect the Advisory Committee to recommend the water source that would address not only lead safety but also other water safety issues.

Accelerating Water System Improvements to Address Replacing Lead Service Lines

Conversations with Congressman Kildee and EPA have clarified the state would be allowed to use Drinking Water Revolving Loan funds to replace private drinking water service lines. Senator Ananich has been approached to introduce language clarifying the state's authority.

Expediting the Completion of the Karegnondi Water Authority Pipeline

Dan Wyant has talked to Genesee County Drain Commissioner Jeff Wright. Mr. Wright has provided a list of issues that would help expedite the completion of the Karegnondi

Water Authority pipeline. They include truck weight and frost law exemptions, talent identification, and expediting permits.

Expanding a Safe Drinking Water Technical Advisory Committee

EPA has appointed their national technical expert to the Advisory Committee, and we have appointed Alfred Franzblau, M.D., Professor of Environmental Health Services, University of Michigan, to the Advisory Committee.

Named Dr. Eden Wells as the Flint Drinking Water Public Health Advisor

Boosted a Comprehensive Lead Education Program

Other Updates

- Dan Wyant was interviewed on October 6 by CBS Evening News during filter distribution in Flint. Questions asked were:
    - Was it a mistake to go to Flint River water?
      Answer: We draw water from the surface waters; we treat it to safe drinking water standards. At issue is lead exposure. Lead exposure must be addressed. Actions are being taken to address the issue.
    - Did you put kids at risk?
      Answer: Lead exposure is a serious issue, and steps need to be taken to limit lead exposure.
    - Why did it take so long?
      Answer: DEQ has been there from the beginning addressing the issue of Flint water. Recent tests justify and require the actions taken. Action steps address short-term, intermediate, and long-term lead issues to ensure public safety and confidence of the drinking water.

- Dan Wyant also spoke to the Governor about Flint funding needs. A meeting is scheduled for October 7 at 8:00 a.m. to further discuss proposals.

- What we are telling Flint citizens is:
    - Have your water tested
    - Use only cold water for drinking, cooking, and preparing formula
    - Run water before use if it has not been used for several hours
    - Obtain a water filter approved for lead removal
    - Purchase lead-free plumbing components
    - Remove entire lead service lines

From: Agen, Jarrod (GOV)
Sent: Wednesday, October 07, 2015 7:16 PM
To: Murray, David (GOV); Wurfel, Sara (GOV)
Subject: Fwd: URGENT review please -- Draft Flint water release
Attachments: 151008 Flint water release_V2.docx; ATT00001.htm

Sent from my iPhone

Begin forwarded message:

> **From:** "Baird, Richard (GOV)" <bairdr@michigan.gov>
> **Date:** October 7, 2015 at 7:12:04 PM EDT
> **To:** "Hollins, Harvey (GOV)" <hollinsh@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Biehl, Laura (GOV)" <BiehlL@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>
> **Subject: Fwd: URGENT review please -- Draft Flint water release**
>
> I think this looks good but are we missing an opportunity to shout out all the entities that have stepped up to help? GM, Home Depot, etc. etc.?
>
> If Harvey has the full list, perhaps it could even be attached as an addendum. The point is that a lot of people did come together to address the problem, including the private sector and various volunteer organizations. I think it says something special about this state rallying to help one of its cities.
>
> Rich
>
> Sent from my iPad
>
> Begin forwarded message:
>
> > **From:** "Biehl, Laura (GOV)" <BiehlL@michigan.gov>
> > **Date:** October 7, 2015 at 6:46:28 PM EDT
> > **To:** "Murray, David (GOV)" <MurrayD1@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Wurfel, Sara (GOV)" <Wurfels@michigan.gov>, "Heaton, Anna (GOV)" <HeatonA@michigan.gov>, "Kennedy, Jordan (GOV)" <KennedyJ4@michigan.gov>, "Brown, Jessica (GOV)" <BrownJ53@michigan.gov>, "Paciorek, Josh (GOV)" <Pacioreki@michigan.gov>, "Lasher, Geralyn (DHHS)" <lasherg@michigan.gov>, "Minicuci, Angela (DHHS)" <MinicuciA@michigan.gov>, "Eisner, Jennifer (DHHS)" <EisnerJ@michigan.gov>, "Wurfel, Sara (GOV)" <Wurfels@michigan.gov>, "Tommasulo, Karen (DEQ)" <TommasuloK@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Posthumus, Dick (GOV)" <Posthumusd@michigan.gov>, "Baird, Richard (GOV)" <bairdr@michigan.gov>, "Calley, Brian (GOV)" <[redacted]>, "Forstner, Nathaniel (GOV)" <forstnern1@michigan.gov>
> > **Subject: RE: URGENT review please -- Draft Flint water release**

See new version attached. Small revisions made and placeholders added for Mayor and Mott Foundation Quotes.

From: Murray, David (GOV)
Sent: Wednesday, October 07, 2015 6:12 PM
To: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Biehl, Laura (GOV) <BiehlL@michigan.gov>; Heaton, Anna (GOV) <HeatonA@michigan.gov>; Kennedy, Jordan (GOV) <KennedyJ4@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>; Paciorek, Josh (GOV) <PaciorekJ@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Minicuci, Angela (DHHS) <MinicuciA@michigan.gov>; Eisner, Jennifer (DHHS) <EisnerJ@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Tommasulo, Karen (DEQ) <TommasuloK@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Calley, Brian (GOV) <[redacted]Forstner, Nathaniel (GOV) <forstnern1@michigan.gov>
Subject: URGENT review please -- Draft Flint water release

Team,

Please review this draft press release for the Thursday announcement in Flint. This incorporates some suggested edits to the strong draft from DEQ earlier today.

Thank you very much.

Gov. Rick Snyder: Move back to Detroit water provides best protection for public health in Flint

State, Mott Foundation and city form partnership to fund switch

FLINT, Mich. – Flint families and children will be better protected by reconnecting with the Great Lakes Water Authority as the source of the city's drinking water, Gov. Rick Snyder said.

Snyder said Thursday that he will request the state Legislature to provide a portion of the $12 million needed to reconnect with the authority, with the Flint city government providing $2 million and the Charles Stewart Mott Foundation donating $4 million.

The Michigan Department of Health and Human Services and the Department of Environmental Quality today also committed an additional $3.5 million for water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

Flint city leaders requested the state's help to fund the reconnection after a Wednesday meeting of Flint's Technical Advisory Committee. Flint's move to the

Great Lakes Water Authority is expected to cost about $1.3 million per month until the Karegnondi Water Authority is completed next summer.

“All Flint residents need clean, safe drinking water,” Snyder said. “The technical experts helping the city on its water advisory all agree this move back to the Great Lakes Water Authority provides the best public health protection for children and families. This effort today is the result of people coming together to solve a problem. I appreciate Detroit’s willingness to reconnect with Flint, the Mott Foundation’s generous donation, and the dedication of all parties to come together to protect Flint families and children.”

The move to Detroit water, which is drawn from Lake Huron, carries many public health benefits. As large bodies of water, the Great Lakes are naturally prone to fewer problems from large rain events and other runoff issues that can be present in shallower rivers. Additionally, the Great Lakes Water Authority has already fully optimized its corrosion control, using phosphates to help coat the insides of pipes and prevent lead from leaching into the water.

However, reconnecting with the authority will not completely resolve the city’s problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control. Additionally, some households in the city could experience lead in their drinking water until all lead pipes and plumbing are replaced.

To best protect public health, Snyder said state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead in water.

Free filters are available for current MDHHS clients at the 125 E. Union St. or 4809 Clio Road MDHHS office locations.

For residents who are not currently enrolled in MDHHS assistance programs, free filters are available at the Genesee County Community Action Resource Department offices at 2727 Lippincott and 601 North Saginaw in Flint. Staff will be at all four locations from 9 a.m. to 4 p.m., Monday through Friday, to distribute filters and assist residents who have questions about proper installation.

At the Lippincott location only, extended hours will be offered this weekend, including until 7 p.m. on Thursday and Friday and from 10 a.m. to 2 p.m. on Saturday.

Other good practices for residents concerned about lead include turning on the cold water tap and running the water until it’s as cold as it will go. Additionally, only use cold water for cooking, drinking and especially mixing baby formula.

School test results released; more investigation planned

The state today also released the first results from its lead screening program in schools and homes. Of 37 total samples taken at 13 buildings, four samples spread over three buildings exceeded the federal action level of 15 parts per billion.

However, this sampling provides only an initial screen, and the state is committing to further testing water and inspecting plumbing at these schools.

Until testing is complete, schools are advised to continue using bottled water and filtration as a precaution to protect children.

In addition, free testing is still available for any other Flint school, including daycares and Head Starts. Free testing is also available for any Flint resident.

Additional information, including more detailed lead screening results, is available at www.michigan.gov/flintwater.

###

Dave Murray
Deputy Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

RICK SNYDER
GOVERNOR

BRIAN CALLEY
LT. GOVERNOR

CONTACTS:	FOR IMMEDIATE RELEASE
Sara Wurfel or Dave Murray Governor's Office: 517-335-6397 Brad Wurfel, 517-284-6713 Department of Environmental Quality Jennifer Eisner, 517-230-9804 Department of Health and Human Services	Thursday, Oct. 8, 2015

Gov. Rick Snyder: Move back to Detroit water provides best protection for public health in Flint

State, Mott Foundation and city form partnership to fund switch

FLINT, Mich. – Flint families and children will be better protected by reconnecting with the Great Lakes Water Authority as the source of the city's drinking water, Gov. Rick Snyder said.

Snyder said Thursday that he will request the state Legislature to provide half, or $6 million, of the $12 million needed to reconnect with the authority. The Flint city government will provide $2 million and the Charles Stewart Mott Foundation will donate $4 million.

"All Flint residents need clean, safe drinking water," Snyder said. "The technical experts helping the city on its water advisory all agree this move back to the Great Lakes Water Authority provides the best public health protection for children and families. This effort today is the result of people coming together to solve a problem. I appreciate Detroit's willingness to reconnect with Flint, the Mott Foundation's generous donation, and the dedication of all parties to come together to protect Flint families and children."

The Michigan Departments of Environmental Quality and Health and Human Services today also committed an additional $3.5 million for water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

Flint city leaders requested the state's help to fund the reconnection after a Wednesday meeting of Flint's Technical Advisory Committee. Flint's move to the Great Lakes Water Authority is expected to cost about $1.3 million per month until the Karegnondi Water Authority is completed next summer.

INSERT MAYOR QUOTE HERE

The move to Detroit water, which is drawn from Lake Huron, carries many public health benefits. As large bodies of water, the Great Lakes are naturally prone to fewer problems from large rain events and other runoff issues that can be present in shallower rivers. Additionally, the Great Lakes Water Authority has already fully optimized its corrosion control, using phosphates to help coat the insides of pipes and prevent lead from leaching into the water.

However, reconnecting with the authority will not completely resolve the city's problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control. Additionally, some households in the city could experience lead in their drinking water until all lead pipes and plumbing are replaced.

INSERT MOTT FOUNDATION QUOTE HERE

To best protect public health, Snyder said state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead exposure.

Free filters are available for current MDHHS clients at the 125 E. Union St. or 4809 Clio Road MDHHS office locations. For residents who are not currently enrolled in MDHHS assistance programs, free filters are available at the Genesee County Community Action Resource Department offices at 2727 Lippincott and 601 North Saginaw in Flint. Staff will be at all four locations from 9 a.m. to 4 p.m., Monday through Friday, to distribute filters and assist residents who have questions about proper installation. At the Lippincott location only, extended hours will be offered this weekend, including until 7 p.m. on Thursday and Friday and from 10 a.m. to 2 p.m. on Saturday.

Other good practices for residents concerned about lead include turning on the cold water tap and running the water until it's as cold as it will go. Additionally, only use cold water for cooking, drinking and especially mixing baby formula.

School test results released; more investigation planned

The state today also released the first results from its lead screening program in schools and homes. Of 37 total samples taken at 13 buildings, four samples spread over three buildings exceeded the federal action level of 15 parts per billion.

However, this sampling provides only an initial screen, and the state is committing to further testing water and inspecting plumbing at these schools. Until testing is complete, schools are advised to continue using bottled water and filtration as a precaution to protect children.

In addition, free testing is still available for any other Flint school, including daycares and Head Starts. Free testing is also available for any Flint resident.

Additional information, including more detailed lead screening results, is available at www.michigan.gov/flintwater.

###

From: Agen, Jarrod (GOV)
Sent: Wednesday, October 07, 2015 7:18 PM
To: Murray, David (GOV); Wurfel, Sara (GOV)
Subject: Fwd: Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: City of Flint Water Funding Solution.pdf; ATT00001.htm; FLINT SCHOOL TESTING RESULTS.DOCX; ATT00002.htm; Drinking Water Regulations for Monitoring of Lead in Schools and Child C....doc; ATT00003.htm; Response to Corrosion Control Questions.docx; ATT00004.htm; Fwd: TAC Meeting Highlights; ATT00005.htm; CC Meeting Minutes 3-25-2013 (1).doc; ATT00006.htm; Flint.pdf; ATT00007.htm; KWA Contract (amended) 130165.2.pdf; ATT00008.htm

Sent from my iPhone

Begin forwarded message:

From: "Wyant, Dan (DEQ)" <WyantD@michigan.gov>
Date: October 7, 2015 at 7:09:27 PM EDT
To: "Scott, Allison (GOV)" <scotta12@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Dickinson, Sarah (GOV)" <DickinsonS@michigan.gov>, "Emmitt, Beth (GOV)" <emmittb@michigan.gov>
Subject: Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED

Governor Snyder,

I wanted to provide you with the attached documents to address a number of the questions that you are asking today. A full briefing for the press conference, including press release, talking points, run of show, and frequently asked questions, will be provided by your team. Included in this e-mail are the following attachments:

1. Flint Drinking Water FY 2016 supplemental budget request summary
2. Summary of the Flint schools water testing results and our response to the results
3. Drinking water regulations for monitoring lead in schools and child care centers
4. Response to the questions on corrosion control
5. Summary of today's Safe Drinking Water Technical Advisory Committee meeting
6. Flint City Council Minutes from March 25, 2013; the Resolution to Purchase Capacity from Karegnondi Water Authority; and the Amended Contract

Other Updates

Mayor Duggan and Sue McCormick of DWSD were contacted, briefed, and are supporting tomorrow's announcement. Both have indicated they would provide positive comments supporting the decision.

City of Flint Water - Funding Solution
State of Michigan Commitment

Agency	GF/GP	Gross	Comments
Filters:			
Health & Human Services	$1,016,000	$1,016,000	AY15 work project
Health & Human Services	$0	$1,000,000	DEQ State Restricted Settlement Funds provided to HHS Emergency Services local office (FY16 appropriation).
Subtotal Filters:	**$1,016,000**	**$2,016,000**	
Reconnect to DSW:			**Reconnection costs ~$1.3m/month x 9 mos. to be shared by state & Flint**
Environmental Quality	$5,000,000	$6,000,000	DEQ State Restricted Settlement Fund of $1m; balance GF/GP
Subtotal Reconnect:	**$5,000,000**	**$6,000,000**	
Testing Costs:			
Environmental Quality	$1,000,000	$1,000,000	Additional tests at state lab; cost per sample: $26
Subtotal Testing:	**$1,000,000**	**$1,000,000**	
Additional Agency Support:			
LARA	$0	$200,000	Support for plumbing inspectors to do schools (public and parochial) and health facilities (hospitals, Long Term Care, etc.).
MSHDA	$0	$249,900	
Health & Human Services	$600,000	$600,000	Follow-up on children with elevated blood levels
Environmental Quality	$300,000	$300,000	Home and school inspections.
Subtotal Additional Support:	**$900,000**	**$1,349,900**	
ALL TOTAL	**$7,916,000**	**$10,365,900**	

FLINT SCHOOL TESTING RESULTS:

WHAT DID WE FIND?

1) The results of the initial screening conducted over the course of the last week are consistent with the last round of community lead and copper testing.

2) There were a total of 37 samples taken from 13 schools. Of those 37 samples, 4 exceeded the 15 ppb action level. There were 3 schools that had samples exceeding the action level: Eisenhower Elementary (which had two samples exceeding 15 ppb). Brownell STEM Academy and Freeman Elementary each had one sample exceeding 15 PPB. The sample from Freeman Academy was significantly higher than the other samples at 101 PPB.

3) Looking at the data from a health based perspective, the data clearly demonstrates that more detailed sampling needs to occur so that the various sources of lead contamination contained within each respective school's plumbing can be identified and addressed.

WHAT DOES THE DATA MEAN?

1) The data underscores the need for a complete and thorough evaluation of the plumbing system within each school.

2) We have developed a protocol for evaluating the plumbing systems and we will be working with schools to implement these protocols and to assist them in determining a corrective action plan to address this issue.

3) The State is identifying staff within DEQ, DHHS, LARA and Local County Health Departments to assist schools in conducting evaluations of their plumbing systems.

WHAT IS YOUR PROTOCOL?

1) DEQ's protocols are based on similar work done in Michigan and in other States.

2) Multiple samples from each tap used for cooking or drinking water will be collected at prescribed intervals to identify levels of lead and its likely source.

3) Once an evaluation is complete, we will be able to assist each School in developing a comprehensive plan to address issues on a site specific basis.

HOW DO SCHOOLS RESPOND?

1) Schools should continue protective measures that are currently in place until a complete study can be conducted at each school. This includes the continued use of bottled water for consumption purposes.

2) We will be reaching out to schools to schedule a complete evaluation, assessment and sampling, of their plumbing systems.

Drinking Water Regulations for Monitoring of Lead in Schools and Child Care Centers

There is no federal or Michigan law requiring sampling of drinking water in schools that receive water from other public water systems, although schools that have their own water supply are subject to regulation and sampling as non-community public water systems. Schools served by a public water system may be included as a sampling site (i.e., tap) for a public water system's lead and copper monitoring program if there are insufficient single-family homes that qualify. There are no federal requirements for more extensive testing.

The 1986 Amendments to the Safe Drinking Water Act (SDWA) required EPA to develop regulations to control for lead in drinking water. The Lead and Copper Rule (LCR), issued in 1991, is focused on controlling corrosion within the distribution system that delivers water to customers. The 1986 SDWA Amendments also required that only lead-free materials be used in new plumbing and in plumbing repairs.

In 1988, the SDWA was further amended by the Lead Contamination Control Act (LCCA), to reduce the exposure of lead to children in schools and child care facilities. The LCCA prohibited the sale of any drinking water cooler that is not lead-free and required that:
• the EPA identify each brand and model of drinking water cooler, indicating which are lead free and which have a lead-lined tank and distribute the list to states (SDWA Sec. 1463),
• the Consumer Product Safety Commission order that manufacturers and importers of all drinking water coolers identified as having a lead-lined tank repair, replace, or recall and provide a refund for such coolers (SDWA Sec. 1462),
• the EPA publish a guidance document and testing protocol to assist states in determining the source and degree of lead contamination in school drinking water (SDWA Sec. 1464), and
• states establish programs to assist schools and child care facilities to test for and remedy lead contamination problems, with public availability of results of such testing (SDWA Sec. 1464(d)).

As a result of a 1996 court decision, States are not required to establish testing programs. In its decision, the Fifth Circuit held that provisions in section 1464(d) were unconstitutional under the Tenth Amendment to the U.S. Constitution because they directly compelled the state to enact and enforce a federal regulatory program and provided no options for the State to decline the program. The decision did not, however, restrict states from developing and carrying out their own programs to assist schools.

In 1989 and subsequent years, EPA released guidance and information to inform states and school systems how to test for and reduce the risk of lead exposure in school drinking water. EPA's guidance provides a protocol for testing water in schools and recommends that schools take action at fixtures where the lead concentration exceeds 20 ppb. This concentration differs from the 15 ppb action level that public water systems are required to follow. ***The 20 ppb action level is based on a smaller sample collection volume of 250 milliliters (ml) and is designed to pinpoint specific fountains and outlets that require attention.***

In 1990, Michigan did provide schools and licensed child care centers with information to assist in testing and remedying potential lead contamination of their drinking water as required by the Lead Contamination Control Act of 1988. This information included a sampling protocol and guidance on flushing their system to minimize lead exposure.

In 2004, EPA surveyed states to determine what additional programs may exist to control exposure to lead in drinking water at schools and child care centers. Forty-nine states, Puerto Rico, the District of Columbia and the Navajo Nation responded. Only 16 respondents indicated they have or will conduct special sampling or studies to target lead exposure at schools and child care centers. Michigan has not included any additional sampling programs or studies. However, some local agencies have conducted voluntary programs. For example, the W.K. Kellogg Foundation funded a program implemented by the Calhoun County Health Department that sampled schools in Battle Creek. In Michigan's response to this EPA survey, we included a recommendation for EPA to allow schools to be considered as a primary LCR monitoring site so that more information about lead levels in schools would become available. However, no changes in sampling criteria have occurred to date.

In 2005, a Memorandum of Understanding was signed between the EPA, the Department of Education, the Centers for Disease Control and Prevention (CDC), the American Water Works Association, the Association of Metropolitan Water Agencies, the Association of State Drinking Water Administrators, the National Association of Water Companies and the National Rural Water Association to facilitate actions that reduce children's exposure to lead from drinking water at schools and child care facilities.

Across the country and in Michigan, most schools and child care facilities receive water from other community water systems. However, those schools that have their own source of drinking water are considered non-transient non-community water systems and are subject to the LCR. In Michigan, there are 755 such schools and child care centers that must monitor for lead to demonstrate compliance.

Response to Corrosion Control Questions

- Lime Softening can affect the pH in water
- The pH of the water is one physical characteristic that can affect the leaching of lead from pipes into the water
- As per the requirements in the Lead/Copper rule the Flint Water system was evaluated for two consecutive monitoring periods and the results of the monitoring demonstrated that further action was necessary.
- The DEQ promptly notified the Flint water system of the need for additional measures and the city of Flint promptly began putting together an action plan to address this need.

From: Sygo, Jim (DEQ) <SygoJ@michigan.gov>
Sent: Wednesday, October 07, 2015 6:00 PM
Subject: Fwd: TAC Meeting Highlights

Summary of advisory committee meeting

Sent from my iPhone

Begin forwarded message:

> **From:** "Prysby, Mike (DEQ)" <PRYSBYM@michigan.gov>
> **Date:** October 7, 2015 at 4:56:44 PM EDT
> **To:** "Sygo, Jim (DEQ)" <SygoJ@michigan.gov>
> **Subject: TAC Meeting Highlights**
>
> Below is a summary of the Flint TAC meeting to obtain the committee's endorsement to switch back to Detroit water.
> 1. The TAC endorses the switch back to the DWSD
> 2. Marc Edwards of VA Tech supports the switchover to DWSD with conclusion that Flint River water with corrosion control will still be 4 times more corrosive
> than water from DWSD after 5 weeks of treatment.
> 3. Genesee County states two weeks to prepare pipeline for re-use (flush, disinfect, sample, etc)
> 4. Supplemental corrosion control still needed with DWSD water and ACT 399 submittal can be made in approx one week.
> 5. No pros were brought to the table for staying on the Flint River.
>
> Sent from my iPhone

City of Flint, Michigan

Third Floor, City Hall
1101 S. Saginaw Street
Flint, Michigan 48502
www.cityofflint.com

Meeting Minutes - Draft

Monday, March 25, 2013

5:33 PM

Agenda amended to include Board of Hospital Managers appointments

Council Chambers

CITY COUNCIL

Scott Kincaid, President, Ward 9
Bryant W. Nolden, Vice President, Ward 3

Claudia Croom, Ward 1 ***Jacqueline Poplar, Ward 2***
Joshua M. Freeman, Ward 4 ***Bernard Lawler, Ward 5***
Sheldon A. Neeley, Ward 6 ***Dale K. Weighill, Ward 7***
Michael J. Sarginson, Ward 8

Inez M. Brown, City Clerk

CALL TO ORDER

President Scott Kincaid called the meeting to order at 5:33 p.m.

ROLL CALL

Councilperson Michael Sarginson arrived at 5:37 p.m.

Present: Councilperson: Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, Kincaid, Councilperson Weighill and Councilperson Croom

PLEDGE OF ALLEGIANCE

Councilperson Sheldon Neeley led the Pledge of Allegiance.

SPECIAL ORDER

130217 Special Order/Information & Discussion/Karegnondi Water Authority (KWA)

A Special Order as requested by Council President Scott Kincaid to continue discussion and review of information on the Karegnondi Water Authority (KWA).

Presented

PETITIONS AND UNOFFICIAL COMMUNICATIONS

130193 Change to Digital/All Limited Basic Service Channels/Comcast Cablevision

Communication dated March 6, 2013, from Gerald W. Smith, Government Affairs Manager, Comcast, to Flint City Clerk, re: On or shortly after April 9, 2013, Comcast will convert all Limited Basic service channels -- including Public, Government and Educational Access (PEG) channels to digital format, and will provide customers with digital equipment.

This matter was Placed on File. The motion carried.

130199 Certified Letter/Loyst Fletcher, Jr. & Associates

Communication received from Loyst Fletcher, Jr. to Chief Legal Officer, re: He questions the tax-exempt status of Word of Life Christian Church, which received a tax bill from the city.

This matter was Placed on File. The motion carried.

130200 Local Approval Notice/Michigan Liquor Control Commission (MLCC)/Time Square/Ward 3

Local Approval Notice dated March 14, 2013, from MLCC to Flint City Clerk, re: The MLCC has received a request to transfer all stock in 2012 Class C license with Sunday Sales Permit (PM) and Dance Permit, located at 4522 N. Saginaw,

Flint, Michigan, 48505, Genesee County, held by the estate of Myra Seals, Inc., 1028 Cora Dr., Flint, MI 48532, to Carisa Mays Bishop, Personal Representative. [NOTE: Approval order enclosed.]

This matter was Placed on File. The motion carried.

130202 Local Approval Notice/Michigan Liquor Control Commission (MLCC)/D & R Market, Inc./Ward 6

Local Approval Notice dated March 6, 2013, and received March 15, 2013, from MLCC to Flint City Clerk, re: The MLCC has received an application from 2 AAR, LLC, requesting to Transfer Ownership of a Specially Designated Distributor (SDD) and Specially Designated Merchant (SDM) licensed business with Sunday Sales permit (PM) and Direct Connection-I to D & R Market, Inc., located at 1402-1404 N. Chevrolet, Flint, Michigan, 48504, Genesee County, from 2 AAR, LLC, 3079 Shattuck Arms Blvd., Apt. 5, Saginaw, MI 48603. [NOTE: The application was cancelled pursuant to a request from an attorney.]

This matter was Placed on File. The motion carried.

130204 Changes/Cable Channel Lineup/Comcast Cablevision

Communication dated March 18, 2013, from Gerald W. Smith, Government Affairs Manager, Comcast, to Flint City Clerk, re: effective on or about May 22, 2013, Fox Business Network/Fox Business Network HD (ch. 06/243) will from the Digital Preferred Service to the Digital Starter Service.

This matter was Placed on File. The motion carried.

130205 Media Alert/Flint Public Art Project/Announcement of Design Winner

Media Alert received via e-mail on March 19, 2013, from the American Institute of Architects (AIA), re: The Flint Public Art Project and the Flint Chapter of the AIA will announce the winner of the $25,000.00 grand prize in the inaugural Flat Lot competition to design and build a temporary summer pavilion on Flint's central downtown parking lot at 9:30 a.m. Thursday, March 21, 2013, at the John Gazall & Associates, Mott Building, 503 S. Saginaw Street, Flint.

This matter was Placed on File. The motion carried.

130207 Damage Claims

MAYFIELD, LINDA, 2518 Walter Street, Flint, MI (WARD 2)
LANE, WILLIE C., 3130 Concord Street, Flint, MI (WARD 6)

This matter was Placed on File. The motion carried.

COMMUNICATIONS FROM CITY OFFICIALS

130194 Press Release/City of Flint/Hiring of New Police Officers/Recruitment of Others

Press Release dated March 11, 2013, from Jason Lorenz, City of Flint Public

Information Officer, re: The City of Flint has seven new police officers on the job from the public safety millage passed last November by voters. The city's next step is to hold a recruitment drive by working with a local college, which will set up a Police Academy when the city has gathered sufficient interest from its efforts.

This matter was Placed on File. The motion carried.

130195 Press Release/City of Flint/Sunday Sales of Alcohol Before Noon Not Permitted on St. Patrick's Day

Press Release dated March 12, 2013, from Jason Lorenz, City of Flint Public Information Officer, re: The City of Flint will not be able to permit Sunday alcohol sales before noon this Sunday, March 17, St. Patrick's Day. While the city adopted a resolution to allow a one-time exception to the Sunday morning alcohol ban, the Michigan Liquor Control Commission has taken the position that the city cannot create a one-day exemption.

This matter was Placed on File. The motion carried.

130196 Flint City Council/Public Notice/Special City Council Meeting/March 18, 2013

Public Notice posted March 14, 2013, re: The Flint City Council will hold a Special City Council Meeting, followed by a Finance Committee Meeting, at 5:30 p.m. Monday, March 18, 2013, in the City Council Chambers, 3rd Floor, City Hall, to consider a contract with the Karegnondi Water Authority (KWA).

This matter was Placed on File. The motion carried.

130201 Emergency Financial Manager (EFM) Order #10/Grant Applications

Order #10 issued by Emergency Financial Manager on March 15, 2013, "Grant Applications," re: "all city officials, department heads, division heads and employees shall adhere to ...requirements regarding the approval of any and all grant applications on behalf of the City of Flint or grant applications submitted by others which in any way involves the financial, programmatic or personnel support by the City of Flint." The five requirements, including the stipulation that only the Emergency Financial Manager or City Administrator are authorized to accept grants on behalf of the city, are included in the order.

This matter was Placed on File. The motion carried.

130203 Press Release/City of Flint/Flint Lifelines/Meeting Announcement

Press Release dated March 16, 2013, from Jason Lorenz, City of Flint Public Information Officer, re: Flint Lifelines, formerly CeaseFire Flint, will hold community meetings on the fourth Thursday of each month, beginning at 1 p.m. Thursday, March 28, 2013 at Flint Northwestern High School. The meetings are open to the public.

This matter was Placed on File. The motion carried.

130206 Flint City Council/Public Notice/Finance Committee Meeting/March 20, 2013

Public Notice posted March 19, 2013, re: The Flint City Council will hold a Finance Committee Meeting at 5:30 p.m. Wednesday, March 20, 2013, in the City Council Committee Room, 3rd Floor, City Hall.

This matter was Placed on File. The motion carried.

130208 Flint City Council/Public Notice/Special Affairs Committee Meeting/March 25, 2013

Public Notice posted March 22, 2013, re: The Flint City Council will hold a Special Affairs Committee Meeting at 5 p.m. Monday, March 25, 2013, in the City Council Committee Room, 3rd Floor, City Hall. A regular City Council meeting will immediately follow in the Council Chambers.

This matter was Placed on File. The motion carried.

130209 Traffic Engineering/Note for Bulletin/Street-Sidewalk-Lane Closures

Notes for Bulletin (3) dated February/March 2013, for street, sidewalk, or lane closures, re: (1) Harrison Street, Saginaw Street and Second Avenue (cable failure-March 11-March 20); (2) First Street, Harrison Street, Wallenberg, Kearsley, Crapo, Horrigan, and Harrison (St. Patrick's Day Pot O' Gold 4-Mil Run/Walk-March 17); and (3) Chevrolet Avenue (University Corner Grand Opening-March 22).

This matter was Placed on File. The motion carried.

Passed The Consent Agenda

A motion was made. The motion carried.

PUBLIC SPEAKERS

ROLL CALL

Councilperson Dale Weighill left at approximately 7 p.m.

Present: Councilperson: Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, Kincaid and Councilperson Croom

Absent: Councilperson: Councilperson Weighill

APPOINTMENTS

130169.1 Amendment/Reappointment/Zoning Board of Appeals/Christine Monk (Ward 6)

Amended resolution resolving that the Flint City Council recommends the reappointment of Christine Monk (821 Frank Street, Flint MI 48504 - Ward 6), to the Zoning Board of Appeals for a three-year term, commencing September

1, 2011, and expiring September 1, 2014. [By way of background, Ms. Monk's term on the Zoning Board of Appeals expired in September 2011, but she has continued since that time to serve.] [Resolution amended to fix typographical error in first paragraph of resolution from "Board of Review" to "Zoning Board of Appeals."]

Sponsors: Sheldon A. Neeley

A motion was made by Councilperson Neeley, seconded by Councilperson Freeman, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130211 Appointment/Zoning Board of Appeals/Chris Zuwala (Ward 4)

Resolution resolving that the Flint City Council recommends the appointment of Chris Zuwala (3510 Whittier Avenue, Flint MI 48506 - Ward 4) to the Zoning Board of Appeals for a three-year term, expiring September 1, 2013. [NOTE: By way of background, Gloria Kelly's term as the 4th Ward representative expired in September 2007, but she continued to serve until resigning in January 2013.]

Sponsors: Joshua M. Freeman

A motion was made by Councilperson Freeman, seconded by Councilperson Poplar, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130212 Reappointment/Zoning Board of Appeals/Birdie V. Brooks (Ward 5)

Resolution resolving that the Flint City Council recommends the reappointment of Birdie V. Brooks (1307 Columbia Lane, Flint MI 48503 - Ward 5), to the Zoning Board of Appeals for the remainder of a three-year term, expiring September 1, 2014. [By way of background, Ms. Brook's term on the Zoning Board of Appeals expired in September 2011, but she has continued since that time to serve.]

Sponsors: Bernard Lawler

A motion was made by Councilperson Lawler, seconded by Councilperson Neeley, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130213

Resolution resolving that the Flint City Council recommends the reappointment of Marcia Braden (984 Barney Avenue, Flint MI 48503 - Ward 8), to the Zoning Board of Appeals for the remainder of a three-year term, expiring September 1, 2014. [By way of background, Ms. Braden's term on the Zoning Board of Appeals expired in September 2011, but she has continued since that time to serve.]

Sponsors: Michael J. Sarginson

A motion was made by Councilperson Sarginson, seconded by Councilperson Freeman, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130214 Reappointment/Zoning Board of Appeals/David C. Veasley (Ward 9)

Resolution resolving that the Flint City Council recommends the reappointment of David C. Veasley (2618 Pinetree Drive, Flint MI 48507 - Ward 9), to the Zoning Board of Appeals for the remainder of a three-year term, expiring September 1, 2015. [By way of background, Mr. Veasley's term on the Zoning Board of Appeals expired in September 2009, but he has continued since that time to serve.]

Sponsors: Scott Kincaid

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130215 Appointment/Genesee County Land Bank Citizens' Advisory Council/Anthony Tucker (Ward 4)

Resolution resolving that the Flint City Council recommends the appointment of Anthony Tucker (2960 Henry Street, Flint MI 48506 - Ward 4) to the Genesee County Land Bank Citizens' Advisory Council for the remainder of a three-year term, expiring in January 2016. [NOTE: By way of background, Dan Anderson's term as the 4th Ward representative expired in January 2013.]

Sponsors: Joshua M. Freeman

A motion was made by Councilperson Freeman, seconded by Councilperson Poplar, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130218 Reappointment/Hurley Board of Hospital Managers/Philip W. Shaltz

Resolution resolving that the Flint City Council approves the reappointment of Philip W. Shaltz (14144 Moffet Drive, Fenton, MI 48430) to an additional five-year term on the (Hurley) Board of Hospital Managers, with such term to commence May 1, 2013, and expire April 30, 2018.

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130219 Appointment/Hurley Board of Hospital Managers/Delrico Loyd

Resolution resolving that the Flint City Council approves the appointment of Delrico Loyd (2641 Westwood Parkway, Flint, MI 48507) to a five-year term on the (Hurley) Board of Hospital Managers, with such term to commence May 1, 2013, and expire April 30, 2018. [By way of background, Carl E. Mason was appointed in June 2008; his term expires April 30, 2013.]

Approved

Substituted

A motion was made by Councilperson Neeley, seconded by Councilperson Lawler, that this matter be POSTPONED for March 27, 2013. The motion failed by the following vote:

Aye: 3 - Councilperson Lawler, Councilperson Neeley and Councilperson Sarginson

No: 5 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

Substituted

A motion was made by Vice President Nolden, seconded by Councilperson Freeman, that this matter be Approved. The motion carried by the following vote:

Aye: 5 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, President Kincaid and Councilperson Croom

No: 3 - Councilperson Lawler, Councilperson Neeley and Councilperson Sarginson

Absent: 1 - Councilperson Weighill

130220 Appointment/Hurley Board of Hospital Managers/Donna Poplar

Resolution resolving that the Flint City Council approves the appointment of Donna Poplar (5277 Kimberly Woods Circle, Flint, MI 48504) to a five-year term

on the (Hurley) Board of Hospital Managers, with such term to commence May 1, 2013, and expire April 30, 2018. [By way of background, Frances Gilcreast was appointed in August 2008; her term expires April 30, 2013.]

Approved

Substituted

A motion was made by Councilperson Lawler, seconded by Councilperson Neeley, that this matter be POSTPONED for March 26, 2013. The motion carried by the following vote:

Aye: 7 - Councilperson Poplar, Vice President Nolden, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

No: 1 - Councilperson Freeman

Absent: 1 - Councilperson Weighill

RESOLUTIONS

130165.1 Amended Resolution/Contract/City of Flint/Karegnondi Water Authority (KWA)

Amended resolution resolving that city officials are authorized to enter into a contract with Karegnondi Water Authority (KWA) to purchase fifteen (15) units of capacity, AND, resolving that the City Administrator is authorized to provide KWA information needed to administer the contract, and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract. [NOTE: For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one-time fee of $32,300. Additionally, the buyer shall pay to the KWA not less than $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount NOT-TO-EXCEED $355,300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00, the buyer has a right to cancel the contract. Over the next 25 years, it is expected that continuing with Detroit will cost the region $2.1 billion, compared to $1.9 billion with a pipeline.] [NOTE: Contract not included.] [NOTE: Resolution amended from 18 to 15 units of capacity.]

A motion was made by Councilperson Neeley, seconded by Councilperson Freeman, that this matter be Amended. The motion carried by the following vote:

Aye: 5 - Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley and Councilperson Sarginson

No: 3 - Councilperson Poplar, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130165.2 Amended Resolution/Contract/City of Flint/Karegnondi Water Authority (KWA)

Amended resolution resolving that city officials are authorized to enter into a contract with Karegnondi Water Authority (KWA) to purchase sixteen (16) units

of capacity, AND, resolving that the City Administrator is authorized to provide KWA information needed to administer the contract, and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract. [NOTE: For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one-time fee of $32,300. Additionally, the buyer shall pay to the KWA not less than $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount NOT-TO-EXCEED $355,300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00, the buyer has a right to cancel the contract. Over the next 25 years, it is expected that continuing with Detroit will cost the region $2.1 billion, compared to $1.9 billion with a pipeline.] [NOTE: Contract not included.] [NOTE: Resolution amended from 15 to 16 units of capacity.]

A motion was made by Councilperson Neeley, seconded by Councilperson Freeman, that this matter be Adopted. The motion carried by the following vote:

Aye: 7 - Councilperson Poplar, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

No: 1 - Vice President Nolden

Absent: 1 - Councilperson Weighill

130216 Approval/The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint

Resolution that the City of Flint hereby approves and The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint, attached hereto. [NOTE: The City of Flint created the DDA, in accordance with Public Act 197 of 1975, as amended, and approved The Rules Governing the DDA in 1977. Public Act 197 has been amended and revised at various times since then, which required the proposed changes.] [NOTE: The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint is attached.]

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Amended. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130216.1 Amended Resolution/Approval/The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint

Amended resolution that the City of Flint hereby approves and The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint, attached hereto. [NOTE: The City of Flint created the DDA, in accordance with Public Act 197 of 1975, as amended, and approved The Rules Governing the DDA in 1977. Public Act 197 has been

amended and revised at various times since then, which required the proposed changes.] [NOTE: The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint is attached.] [Resolution amended for changes to rules.]

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Adopted. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

RESOLUTIONS - MAY BE REFERRED FROM S.A.

130210 Resolution/City Council/Mayor Dayne Walling/Request for Appointment of Transition Advisory Board

Resolution resolving that Mayor Dayne Walling and the Flint City Council request and recommend to Gov. Rick Snyder that a receivership transition advisory board be appointed for the City of Flint under Public Act 436 no later than July 1, 2013. [NOTE: On December 1, 2011, Gov. Snyder appointed Michael K. Brown as Emergency Manager under Public Act 4 for the City of Flint, due in part to a consistent deficit in the general fund, the decline in pooled cash, budget issues and unfunded liabilities for post-employment benefits. Due to the suspension and subsequent repeal of Public Act 4, Gov. Snyder appointed Edward J. Kurtz as Emergency Financial Manager under Public Act 72 for the City of Flint, effective August 9, 2012. Both the Emergency Manager and the subsequently appointed Emergency Financial Manager were authorized by virtue of their appointment to "act for and in the place and stead of the governing body and the office of chief administrative officer of the City of Flint." On March 28, 2013, Public Act 436 will become effective and provides that an emergency financial manager appointed and serving under state law immediately prior to the effective date shall continue to serve as an emergency manager under Public Act 436. As an alternative to continuation of an emergency manager, and if the financial emergency has been rectified, Public Act 436 authorizes the governor to appoint a receivership transition advisory board, which serves at the pleasure of the governor and monitors the affairs of the local government until the receivership is terminated.]

No vote was taken on this amendment.

Amended

130210.1 Amended Resolution/City Council/Mayor Dayne Walling/Request for Appointment of Transition Advisory Board

Amended resolution resolving that Mayor Dayne Walling and the Flint City Council request and recommend to Gov. Rick Snyder that a receivership transition advisory board be appointed for the City of Flint under Public Act 436 no later than July 1, 2013. [NOTE: On December 1, 2011, Gov. Snyder appointed Michael K. Brown as Emergency Manager under Public Act 4 for the

City of Flint, due in part to a consistent deficit in the general fund, the decline in pooled cash, budget issues and unfunded liabilities for post-employment benefits. Due to the suspension and subsequent repeal of Public Act 4, Gov. Snyder appointed Edward J. Kurtz as Emergency Financial Manager under Public Act 72 for the City of Flint, effective August 9, 2012. Both the Emergency Manager and the subsequently appointed Emergency Financial Manager were authorized by virtue of their appointment to "act for and in the place and stead of the governing body and the office of chief administrative officer of the City of Flint." On March 28, 2013, Public Act 436 will become effective and provides that an emergency financial manager appointed and serving under state law immediately prior to the effective date shall continue to serve as an emergency manager under Public Act 436. As an alternative to continuation of an emergency manager, and if the financial emergency has been rectified, Public Act 436 authorizes the governor to appoint a receivership transition advisory board, which serves at the pleasure of the governor and monitors the affairs of the local government until the receivership is terminated.] [Six-page resolution amended for changes proposed by City Council, City Clerk and Mayor Dayne Walling.]

A motion was made by Councilperson Freeman, seconded by Councilperson Poplar, that this matter be Adopted. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

MEETING SCHEDULE

ADDITIONAL COUNCIL DISCUSSION

ADJOURNMENT

Having no further business, Council President Scott Kincaid adjourned the meeting at 8:59 p.m.

Respectfully transcribed and submitted,

Janell Johnson. Administrative Secretary to City Council

EM SUBMISSION NO.: 2013EM041

PRESENTED: 3-28-13

ADOPTED: 3-29-13

BY THE EMERGENCY MANAGER:

RESOLUTION TO PURCHASE CAPACITY FROM KAREGNONDI WATER AUTHORITY

The Karegnondi Water Authority (KWA) is a governmental consortium of cities and counties in southeastern Michigan that was created to build a water pipeline that will provide water from Lake Huron to interested communities in Sanilac, Lapeer, and Genesee counties. The incorporating bodies that created the KWA are Sanilac County, Lapeer County, Genesee County, the City of Flint, and the City of Lapeer.

The City of Flint is currently in a year to year contract with the City of Detroit for the purchase of water. A study was conducted that projected that staying with Detroit will cost the region $2.1 billion over the next 25 years. In contrast, if the region builds its own pipeline, the projected costs are $1.9 billion over the same period. After the initial 25 year period, the projected costs would be less then 25% of the projected water costs from Detroit.

In order to build the pipeline, the KWA needs commitment from its members regarding the capacity that each member will purchase in the pipeline. The KWA is allowed to withdraw 85 million gallons of water per day. Capacity is available to members in increments of 1 million gallons per day known as units. For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one time fee of $32,300.00. Additionally, the buyer shall pay to the KWA not less then $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount not to exceed $355.300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00 the buyer has a right to cancel the contract.

The purchase of capacity along with the payment of other costs necessary to operate the pipeline gives the member a right to water for sale to its customers. The buyer has a right to resell capacity and water rights. Each party entering into a capacity contract shall also be entitled to appoint additional board members equal to the party's percentage share of the total capacity under contract.

It is in the long term best interests of the City of Flint to enter into a contract with the KWA to purchase up to eighteen (18) units of capacity.

IT IS RESOLVED that City officials are authorized to enter into a contract with KWA to purchase up to eighteen (18) units of capacity.

IT IS FURTHER RESOLVED that the City Administrator is authorized to provide KWA information needed to administer the contract and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract.

APPROVED AS TO FORM:

Peter M. Bade, City Attorney

APPROVED AS TO FINANCE:

For **Gerald Ambrose, Finance Director**

EM DISPOSITION:

ENACT 1/ **FAIL** _____ **DATED** 3-29-13

Edward L. Kurtz, Emergency Manager

S:\P. Bade\EM2013\Resolutions\KWA.03.28.13.doc

Flint

Flint City Council approves resolution to buy water from Karegnondi, state approval still needed

[http://connect.mlive.com/staff/dadams1/index.html] By Dominic Adams | dadams5@mlive.com [http://connect.mlive.com/staff/dadams1/posts.html]
Follow on Twitter [http://www.twitter.com/dominicadams]
on March 25, 2013 at 10:45 PM, updated March 26, 2013 at 1:28 AM

FLINT, MI – Flint is one step closer to getting its water from Lake Huron as part of the Karegnondi Water Authority.

The vote, **approved 7-1 at the Flint City Council meeting Monday, March 25 [http://www.mlive.com/news/flint/index.ssf/2013/03/flint_city_council_again_delay.html]** , may have set in motion the end to Flint paying to get its water from Detroit.

Under the proposal, Flint would get 16 million gallons per day of raw water from Lake Huron, pipe it to Flint for treatment and then sell it to customers throughout the city. Another 2 million gallons per day would come from the Flint River and will be treated in Flint.

Mayor Dayne Walling said the Department of Environmental Quality must approve Flint's getting 2 million gallons per day from the Flint River.

Tuesday's meeting followed weeks of discussions and special meetings surrounding the resolution.

"We got there," Councilman Joshua Freeman said. "That's the important thing."

There were more than 50 people at Monday's meeting.

"Going with Karegnondi is the best decision. We have no opinion on the economics of the decision," said Rebecca Fedewa, Flint River Watershed Coalition executive director. "If we start drawing water out of the Flint River, we are at risk of having to start releasing water from our reservoirs."

Genesee County Drain Commissioner Jeff Wright said the decision must still be approved by a county water and waste advisory board. The KWA board will then be reconvened for final approval.

Wright said construction could start in May.

State treasury officials still must approve the city council's move because Flint has an emergency financial manager. All expenditures over $50,000 must be approved.

Genesee County Drain Commissioner Jeff Wright has said that Flint would pay roughly $6.4 million annually for water service if it joined the pipeline – a nearly $4 million savings on what it pays Detroit for water.

Walling previously said the **city would save $19 million over eight years [http://www.mlive.com/news/flint/index.ssf/2013/03/flint_city_council_delays_deci.html]** by getting water from the KWA.

"It's a historic night in the City of Flint," Walling said. "The savings will be less with the capacity level approved by city council because there will be increased treatment cost for the river water."

He said the DEQ told the city it needed to get 18 million gallons per day or there would have to be additional work done at Flint's water plant.

Flint's water plant and the Flint River is currently the backup for Flint and Genesee County, however, the plant only operates four times per year.

Councilman Bryant Nolden was the lone dissenting vote.

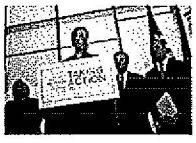
"It was a protest vote," Nolden said. "I knew they had enough votes. I just feel like the Flint River is our best option."

Karengnondi is the regional water authority that includes Genesee, Lapeer and Sanilac counties and the cities of Flint and Lapeer.

Flint is the second municipality, behind Genesee County, to officially decide to purchase raw water through the KWA. Lapeer city officials said they intend to purchase water, but an agreement has been finalized.

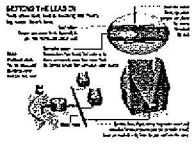
Dominic Adams is a reporter for MLive-Flint Journal. Contact him at ***dadams5@mlive.com*** *or 810-241-8803. Follow him on* ***Twitter [http://www.twitter.com/dominicadams]*** *,* ***Facebook [http://www.facebook.com/dominic.adams.1865]*** *or* ***Google+ [https://plus.google.com/103690672506808729911?rel=author]*** *.*

Related Stories



Price of Detroit water for Flint is $1.5 million a month, mayor says

[http://www.mlive.com/news/flint/index.ssf/2015/10/mayor_city_ad



Here's how that toxic lead gets into Flint water

[http://www.mlive.com/news/flint/index.ssf/2015/10/see_step_by_s

Registration on or use of this site constitutes acceptance of our User Agreement and Privacy Policy

© 2015 MLive Media Group All rights reserved (About Us).
The material on this site may not be reproduced, distributed, transmitted, cached or otherwise used, except with the prior written permission of MLive Media Group

Community Rules apply to all content you upload or otherwise submit to this site. Contact Interactivity management.

▷ Ad Choices

GENESEE COUNTY DRAIN COMMISSIONER'S OFFICE
JEFFREY WRIGHT
COMMISSIONER
G-4608 BEECHER ROAD, FLINT, MI 48532
PHONE (810) 732-1590 FAX (810) 732-1474

FOR IMMEDIATE RELEASE

CONTACT: Jeff Wright

March 26, 2013

810-287-1925

What: Jeff Wright Statement on Flint City Council Approving Resolution to Join KWA.

When: March 26, 2013

Additional Info: Jeff Wright, CEO of the KWA, today praised the Flint City Council for voting to approve a resolution to officially have the City of Flint join the KWA and its' water line.

"I have said from the beginning that this decision must be made by Flint's City Council and Mayor," said Wright. "I appreciate the council voting the way they did, but even more than that, I am glad the residents of Flint were able to have their voices heard via their elected officials." The next step in the process will come with the KWA Board executing the contract for the City.

"The most important aspect from the vote is the fact that we as an Authority can move forward knowing Flint's intentions," said Wright.

Despite Emergency Manager Ed Kurtz publicly supporting the project, Wright had made a vote by council a condition of Flint joining the KWA so the residents would have their say.

"There is a basic tenet that government is best when it has local control. We saw that with the council vote. Nobody, whether they live in Flint, Grand Blanc, Davison, Fenton, or anywhere in Genesee County, should have these types of decisions made by people who live outside of their community," said Wright.

At the next Water and Waste Advisory Board meeting a vote will be taken to award a contract for construction of the intake portion of the water line. All bids were submitted to the board at their last meeting for review.

89 (Rev. 02-11)

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

ANDY DILLON
STATE TREASURER

April 11, 2013

Mr. Edward Kurtz
Emergency Manager
City of Flint
1101 South Saginaw Street
Flint, MI 48502

Dear Mr. Kurtz:

Thank you for your March 29, 2013 letter, which is attached for reference. As the Emergency Manager for the City of Flint ("Flint" or "City"), you have asked for my concurrence, pursuant to Public Act 436 of 2012, the Local Financial Stability and Choice Act, to authorize a contract in excess of $50,000.00 not subject to competitive bidding. This request was related to the City entering into an agreement with the Karegnondi Water Authority (KWA) for provision of raw water for the City.

In considering your request, I took note of the following facts in support of Flint joining KWA. First, there is widespread support in the City for this move, including the support of the Mayor, the City Council, and the Emergency Manager. Second, this move will provide a unique opportunity for the City and County to partner on an important project, which will hopefully lead to future regional collaboration. Third, the Department of Environmental Quality is supportive of the City participating in the KWA project. Finally, your representations that this deal will lead to substantial savings for the City over the coming decades, savings that are desperately needed to help with the turnaround of the City of Flint.

It is my understanding that the Detroit Water and Sewer Department is making a final best offer to Genesee County and the City of Flint next Monday, April 15, 2013. As such, this approval will be effective at 5 pm on April 16, 2013 after receiving written notice from the City that either no such offer was presented to the county and the City or that an offer was received and was rejected in good faith based upon specified objections.

For the reasons described above and subject to the conditions set forth herein, pursuant to Section 12 (3) of PA 436 of 2012, I am authorizing you to proceed with adopting the resolution and entering into a contract with KWA.

Sincerely,

Andy Dillon
State Treasurer

Flint

Flint council supports buying water from Lake Huron through KWA

[http://connect.mlive.com/staff/dadams1/index.html] By Dominic Adams | dadams5@mlive.com [http://connect.mlive.com/staff/dadams1/posts.html]
Follow on Twitter [http://www.twitter.com/dominicadams]
on March 25, 2013 at 7:17 PM, updated March 26, 2013 at 7:43 AM

FLINT, MI -- Flint residents may soon get their water from Lake Huron.

The Flint City Council voted 7-1 to get 16 million gallons per day from the Karegnondi Water Authority.

"This is about compromise," said Councilman Sheldon Neeley.

Neeley got support from Councilman Joshua Freeman, after the two were previously at odds about the amount the city should withdraw from Lake Huron.

Councilman Bryant Nolden was the lone "no" vote.

"It was a protest vote," Nolden said. "I just feel like the Flint River is our best option."

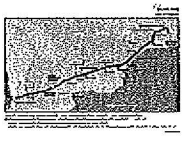
Genesee County Drain Commissioner said construction of the pipeline could start in May.

The city currently pays to get its water from Detroit.

State treasury officials still must approve the city council's move because Flint has an emergency financial manager. All expenditures over $50,000 must be approved.

*Dominic Adams is a reporter for MLive-Flint Journal. Contact him at **dadams5@mlive.com** or 810-241-8803. Follow him on **Twitter [http://www.twitter.com/dominicadams]** , **Facebook [http://www.facebook.com/dominic.adams.1865]** or **Google+ [https://plus.google.com/103690672506808729911?rel=author]** .*

Related Stories



Enbridge can begin piping tar sands oil along Lake Ontario north shore

[http://www.mlive.com/news/index.ssf/2015/10/enbridge_can_beg

Former Detroit American Motors Corp. headquarters being auctioned; starting bid $500

[http://www.mlive.com/news/detroit/index.ssf/2015/10/former_detr

Registration on or use of this site constitutes acceptance of our User Agreement and Privacy Policy

© 2015 MLive Media Group All rights reserved (About Us).
The material on this site may not be reproduced, distributed, transmitted, cached or otherwise used, except with the prior written permission of MLive Media Group

Community Rules apply to all content you upload or otherwise submit to this site. Contact interactivity management.

▷ Ad Choices

Resolution: 130165.2

Presented: 3-11-13

Adopted: 3-25-13

AMENDED RESOLUTION TO PURCHASE CAPACITY FROM KAREGNONDI WATER AUTHORITY

BY THE MAYOR:

The Karegnondi Water Authority (KWA) is a governmental consortium of cities and counties in southeastern Michigan that was created to build a water pipeline that will provide water from Lake Huron to interested communities in Sanilac, Lapeer, and Genesee counties. The incorporating bodies that created the KWA are Sanilac County, Lapeer County, Genesee County, the City of Flint, and the City of Lapeer.

The City of Flint is currently in a year to year contract with the City of Detroit for the purchase of water. A study was conducted that projected that staying with Detroit will cost the region $2.1 billion over the next 25 years. In contrast, if the region builds its own pipeline, the projected costs are $1.9 billion over the same period. After the initial 25 year period, the projected costs would be less then 25% of the projected water costs from Detroit.

In order to build the pipeline, the KWA needs commitment from its members regarding the capacity that each member will purchase in the pipeline. The KWA is allowed to withdraw 85 million gallons of water per day. Capacity is available to members in increments of 1 million gallons per day known as units. For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one time fee of $32,300.00. Additionally, the buyer shall pay to the KWA not less then $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount not to exceed $355,300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00 the buyer has a right to cancel the contract.

The purchase of capacity along with the payment of other costs necessary to operate the pipeline gives the member a right to water for sale to its customers. The buyer has a right to resell capacity and water rights. Each party entering into a capacity contract shall also be entitled to appoint additional board members equal to the party's percentage share of the total capacity under contract.

The City of Flint has decided that it is in its long term best interests to enter into a contract with the KWA to purchase SIXTEEN (16) units of capacity, plus TWO (2) units from the Flint River.

IT IS RESOLVED that City officials are authorized to enter into a contract with KWA to purchase SIXTEEN (16) units of capacity, plus TWO (2) units from the Flint River.

IT IS FURTHER RESOLVED that the City Administrator is authorized to provide KWA information needed to administer the contract and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract.

APPROVED AS TO FORM:

Peter M. Bade
Chief Legal Officer

APPROVED AS TO FINANCE:

Gerald Ambrose
Finance Director

APPROVED BY MAYOR:

Dayne Walling
Mayor

APPROVED BY CITY COUNCIL
ON: March 25, 2013

Inez Brown
Clerk, City of Flint

APPROVED BY
CITY COUNCIL
MAR 25 2013

S:\JP\Ordinances and Resos\KWA.03.08.13.doc

From: Agen, Jarrod (GOV)
Sent: Wednesday, October 07, 2015 7:57 PM
To: Murray, David (GOV); Wurfel, Sara (GOV)
Subject: Fwd: URGENT review please -- Draft Flint water release

Sent from my iPhone

Begin forwarded message:

From: "Hollins, Harvey (GOV)" <hollinsh@michigan.gov>
Date: October 7, 2015 at 7:51:41 PM EDT
To: "Baird, Richard (GOV)" <bairdr@michigan.gov>
Cc: "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Biehl, Laura (GOV)" <BiehlL@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>
Subject: Re: URGENT review please -- Draft Flint water release

Thanks Rich. I'll send a list of players that I am aware of later. I have two observations re the release below.

1)

Gov. Rick Snyder: Move back to Detroit water provides best protection for public health in Flint UNTIL KWA IS ONLINE

State, Mott Foundation and city form partnership to fund switch

FLINT, Mich. – Flint families and children will be better protected by reconnecting with the Great Lakes Water Authority as the source of the city' s drinking water UNTIL KWA IS ONLINE, Gov. Rick Snyder said.

******* although KWA is referenced later, the opening implies that this is a permanent switch and that KWA will be substandard to GLWA********

2)

> "The move to Detroit water, which is drawn from Lake Huron, carries many public health benefits. As large bodies of water, the Great Lakes are naturally prone to fewer problems from large rain events and other runoff issues that can be present in shallower rivers. Additionally, the Great Lakes Water Authority has already fully optimized its corrosion control, using phosphates to help coat the insides of pipes and prevent lead from leaching into the water. "

*****this is a good statement and true as long as all municipalities get there water from the Great Lakes. If not, are we saying that there are other communities that do not have optimum drinking water? *****

Best,
Harvey

On Oct 7, 2015, at 7:12 PM, Baird, Richard (GOV) <bairdr@michigan.gov> wrote:

> I think this looks good but are we missing an opportunity to shout out all the entities that have stepped up to help? GM, Home Depot, etc. etc.?
>
> If Harvey has the full list, perhaps it could even be attached as an addendum. The point is that a lot of people did come together to address the problem, including the private sector and various volunteer organizations. I think it says something special about this state rallying to help one of its cities.
>
> Rich
>
> Sent from my iPad
>
> Begin forwarded message:
>
> **From:** "Biehl, Laura (GOV)" <BiehlL@michigan.gov>
> **Date:** October 7, 2015 at 6:46:28 PM EDT
> **To:** "Murray, David (GOV)" <MurrayD1@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Wurfel, Sara (GOV)" <Wurfels@michigan.gov>, "Heaton, Anna (GOV)" <HeatonA@michigan.gov>, "Kennedy, Jordan (GOV)" <KennedyJ4@michigan.gov>, "Brown, Jessica (GOV)" <BrownJ53@michigan.gov>, "Paciorek, Josh (GOV)" <PaciorekJ@michigan.gov>, "Lasher, Geralyn (DHHS)" <lasherg@michigan.gov>, "Minicuci, Angela (DHHS)" <MinicuciA@michigan.gov>, "Eisner, Jennifer (DHHS)" <EisnerJ@michigan.gov>, "Wurfel, Sara (GOV)" <Wurfels@michigan.gov>, "Tommasulo, Karen (DEQ)" <TommasuloK@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Posthumus, Dick (GOV)" <Posthumusd@michigan.gov>, "Baird, Richard (GOV)" <bairdr@michigan.gov>, "Calley, Brian (GOV)" <[redacted]>, "Forstner, Nathaniel (GOV)" <forstnern1@michigan.gov>
> **Subject: RE: URGENT review please -- Draft Flint water release**
>
> See new version attached. Small revisions made and placeholders added for Mayor and Mott Foundation Quotes.
>
> ---
>
> **From:** Murray, David (GOV)
> **Sent:** Wednesday, October 07, 2015 6:12 PM
> **To:** Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Biehl, Laura (GOV) <BiehlL@michigan.gov>;

Heaton, Anna (GOV) <HeatonA@michigan.gov>; Kennedy, Jordan (GOV) <KennedyJ4@michigan.gov>; Brown, Jessica (GOV) <BrownJ53@michigan.gov>; Paciorek, Josh (GOV) <Paciorekj@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Minicuci, Angela (DHHS) <MinicuciA@michigan.gov>; Eisner, Jennifer (DHHS) <EisnerJ@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Tommasulo, Karen (DEQ) <TommasuloK@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Calley, Brian (GOV) <[redacted]>; Forstner, Nathaniel (GOV) <forstnern1@michigan.gov>
Subject: URGENT review please -- Draft Flint water release

Team,

Please review this draft press release for the Thursday announcement in Flint. This incorporates some suggested edits to the strong draft from DEQ earlier today.

Thank you very much.

Gov. Rick Snyder: Move back to Detroit water provides best protection for public health in Flint

State, Mott Foundation and city form partnership to fund switch

FLINT, Mich. – Flint families and children will be better protected by reconnecting with the Great Lakes Water Authority as the source of the city's drinking water, Gov. Rick Snyder said.

Snyder said Thursday that he will request the state Legislature to provide a portion of the $12 million needed to reconnect with the authority, with the Flint city government providing $2 million and the Charles Stewart Mott Foundation donating $4 million.

The Michigan Department of Health and Human Services and the Department of Environmental Quality today also committed an additional $3.5 million for water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

Flint city leaders requested the state's help to fund the reconnection after a Wednesday meeting of Flint's Technical Advisory Committee. Flint's move to the Great Lakes Water

Authority is expected to cost about $1.3 million per month until the Karegnondi Water Authority is completed next summer.

“All Flint residents need clean, safe drinking water,” Snyder said. “The technical experts helping the city on its water advisory all agree this move back to the Great Lakes Water Authority provides the best public health protection for children and families. This effort today is the result of people coming together to solve a problem. I appreciate Detroit’s willingness to reconnect with Flint, the Mott Foundation’s generous donation, and the dedication of all parties to come together to protect Flint families and children.”

The move to Detroit water, which is drawn from Lake Huron, carries many public health benefits. As large bodies of water, the Great Lakes are naturally prone to fewer problems from large rain events and other runoff issues that can be present in shallower rivers. Additionally, the Great Lakes Water Authority has already fully optimized its corrosion control, using phosphates to help coat the insides of pipes and prevent lead from leaching into the water.

However, reconnecting with the authority will not completely resolve the city’s problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control. Additionally, some households in the city could experience lead in their drinking water until all lead pipes and plumbing are replaced.

To best protect public health, Snyder said state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead in water.

Free filters are available for current MDHHS clients at the 125 E. Union St. or 4809 Clio Road MDHHS office locations.

For residents who are not currently enrolled in MDHHS assistance programs, free filters are available at the Genesee County Community Action Resource Department offices at 2727 Lippincott and 601 North Saginaw in Flint. Staff will be at all four locations from 9 a.m. to 4 p.m., Monday through Friday, to distribute filters and assist residents who have questions about proper installation.

At the Lippincott location only, extended hours will be offered this weekend, including until 7 p.m. on Thursday and Friday and from 10 a.m. to 2 p.m. on Saturday.

Other good practices for residents concerned about lead include turning on the cold water tap and running the water until it’s as cold as it will go. Additionally, only use cold water for cooking, drinking and especially mixing baby formula.

School test results released; more investigation planned

The state today also released the first results from its lead screening program in schools and homes. Of 37 total samples taken at 13 buildings, four samples spread over three buildings exceeded the federal action level of 15 parts per billion.

However, this sampling provides only an initial screen, and the state is committing to further testing water and inspecting plumbing at these schools. Until testing is complete, schools are advised to continue using bottled water and filtration as a precaution to protect children.

In addition, free testing is still available for any other Flint school, including daycares and Head Starts. Free testing is also available for any Flint resident.

Additional information, including more detailed lead screening results, is available at www.michigan.gov/flintwater.

###

Dave Murray
Deputy Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

<151008 Flint water release_V2.docx>

From: Agen, Jarrod (GOV)
Sent: Tuesday, October 13, 2015 4:14 PM
To: Dickinson, Sarah (GOV); Bedan, Morgan (GOV)
Cc: Scott, Allison (GOV); Clement, Elizabeth (GOV); Muchmore, Dennis (GOV)
Subject: Flint Timeline
Attachments: 1st letter to blend.pdf; 2nd request to blend.pdf; KWA Approval.pdf; Kurtz KWA.pdf; DWSD Termination Ltr.pdf

Importance: High

Can we put into Gov's briefing tonight?

Kurtz was EM at time of final decision/move to switch to KWA. Earley was EM at time of switch to Flint River water.

Flint EM dates (financial emergency declared in December 2011)

Mike Brown, apptd 12-1-11 (when fin emer declared under PA 4 of 2011)
Ed Kurtz, apptd 8-8-12 (when PA4 was repealed in Aug 2012, Brown couldn't serve as EM, PA 72 back in effect)
Mike Brown, apptd 7-4-13 (Kurtz retired; PA436 in effect)
Darnell Earley, apptd 10-8-13 (Brown resigned)
Gerald Ambrose, apptd 1-13-15 (Earley appointed DPS EM)

Financial Emergency resolved, 4-29-15 (RTAB apptd)

Other dates

June 26, 2012 – Letter from EM Brown to DWSD seeking permission to blend river water with DWSD water (attached).

Sept. 20, 2012 – Letter from EM Kurtz to DWSD requesting written permission to implement blending (attached).

March 25, 2013 – The Flint City Council endorses joining KWA (see url below)
http://blog.mlive.com/newsnow_impact/print.html?entry=/2013/03/flint_city_council_approves_re.html

April 11, 2013 – Treasurer Dillion sends letter to EM Kurtz (attached) noting conditional approval of move to KWA (pursuant to PA436), pending a review of DWSD's last, best offer.

April 16, 2013 – EM Kurtz informs Treasury that the City will join KWA (attached).

April 17, 2013 – DWSD transmits letter to EM Kurtz terminating service to Flint, effective April 17, 2014 (attached).

April 17, 2014 – Water service from DWSD officially ends.

CITY OF FLINT

Infrastructure and Development

Dayne Walling
Mayor

Michael K. Brown
Emergency Manager

Howard D. Croft
Director

June 26, 2012

Sue F. McCormick
Director DWSD
735 Randolph St.
Detroit, MI 48226

Dear Ms. McCormick,

In cooperation with the Michigan Department of Environmental Quality (MDEQ) and city engineers, the City of Flint has undertaken a review of the regulatory requirements necessary to supply water to our residential and commercial customers. As part of our evaluation it was determined that the Flint Water Treatment Plant is capable of successfully "blending" or "co-mingling" water sources while continuing to provide quality drinking water to citizens.

The Flint Water Treatment Plant would require approximately $1.3 million dollars in increased expenses in order to blend as much as one third (1/3) of treated river water with two thirds (2/3) of treated DWSD water. Using the 2013 DWSD rates this would result in savings of between two and three million dollars annually based on current usage data. The MDEQ has provided Flint with written documentation supporting our blending of water sources and the potential benefit.

Given this information we respectfully request written permission from DWSD to proceed with blending treated Flint River Water with treated DWSD water.

It should be understood that our goal is to deliver both high quality and economically viable water to our customers. This goal has led us to fully consider all available options including purchasing water from the Karegnondi Water Authority and use of the Flint River. We believe that in order for an option with DWSD to be successful it is essential that along with the proposed authorization to blend water that there is a guaranteed containment of the new "fixed costs" that exist in the current fee structure. The new DWSD fixed charge of $707,000 each month regardless of amount of water used is five times the original $143,000 each month instituted only two years ago. This has resulted in the cost of water from DWSD dropping in recent years as the overall fee has increased annually by millions although our usage has continued to decline. The continuation of this trend would render our request and goals invalid.

With the current Emergency Manager condition in Flint we believe that limiting an agreement to only three years is appropriate. This time frame would also serve as an evaluation period prior to any proposed long term agreement being considered.
We appreciate your consideration and look forward to working together.

Sincerely,

Michael K. Brown
Emergency Financial Manager Flint, Mi.

CITY HALL 1101 S. SAGINAW STREET FLINT, MICHIGAN 48502 TEL: 810-766-7135 FAX: 810-766-7249

Edward J. Kurtz
Emergency Financial Manager

Dayne Walling
Mayor

September 20, 2012

Sue F. McCormick & DWSD Board
Director DWSD
735 Randolph Street
Detroit, MI 48226

Dear DWSD Board:

During the past nine months we have had several discussions with DWSD representatives regarding future water rates and other options including permission for Flint to blend treated water from DWSD. Flint currently has received written documentation from the state regulatory agency DEQ supporting the ability for Flint to safely blend treated water from Detroit.

In an effort to move forward we must have a written response from the DWSD Board that clearly states the following:

Will DWSD allow Flint to blend treated water from Detroit?

What are the rates given an estimated usage by Flint and Genesee County of:

- 23 MGD Average Daily Usage
- 40 MGD Maximum Day Usage

We are requesting this information be delivered to Flint no later than **October 1, 2012** so that we may evaluate all of our options and begin moving forward.

Sincerely,

Edward J. Kurtz
Emergency Financial Manager

City Hall
1101 S. Saginaw Street - Flint, Michigan 48502
810-766-7346 FAX: 810-766-7218 www.cityofflint.com

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

ANDY DILLON
STATE TREASURER

Mr. Edward Kurtz
Emergency Manager
City of Flint
1101 South Saginaw Street
Flint, MI 48502

April 11, 2013

Dear Mr. Kurtz:

Thank you for your March 29, 2013 letter, which is attached for reference. As the Emergency Manager for the City of Flint ("Flint" or "City"), you have asked for my concurrence, pursuant to Public Act 436 of 2012, the Local Financial Stability and Choice Act, to authorize a contract in excess of $50,000.00 not subject to competitive bidding. This request was related to the City entering into an agreement with the Karegnondi Water Authority (KWA) for provision of raw water for the City.

In considering your request, I took note of the following facts in support of Flint joining KWA. First, there is widespread support in the City for this move, including the support of the Mayor, the City Council, and the Emergency Manager. Second, this move will provide a unique opportunity for the City and County to partner on an important project, which will hopefully lead to future regional collaboration. Third, the Department of Environmental Quality is supportive of the City participating in the KWA project. Finally, your representations that this deal will lead to substantial savings for the City over the coming decades, savings that are desperately needed to help with the turnaround of the City of Flint.

It is my understanding that the Detroit Water and Sewer Department is making a final best offer to Genesee County and the City of Flint next Monday, April 15, 2013. As such, this approval will be effective at 5 pm on April 16, 2013 after receiving written notice from the City that either no such offer was presented to the county and the City or that an offer was received and was rejected in good faith based upon specified objections.

For the reasons described above and subject to the conditions set forth herein, pursuant to Section 12 (3) of PA 436 of 2012, I am authorizing you to proceed with adopting the resolution and entering into a contract with KWA.

Sincerely,

Andy Dillon
State Treasurer

CITY OF FLINT
OFFICE OF EMERGENCY MANAGER
EDWARD J. KURTZ

ELECTRONIC LETTER

April 16, 2013

Andy Dillon
State Treasurer
P. O. Box 30716
Lansing, MI 48909

Dear Treasurer Dillon:

Flint, Genesee County and KWA received an eight page letter from Detroit Water and Sewerage Department (DWSD) offering a framework for a long-term agreement with our region. Two scenarios were presented;

Scenario 1: Water from the Lake Huron Plant.

This offer was dismissed immediately because Flint would still be responsible for their share of the KWA water pipeline delivery system estimated to be $79 million. In addition Flint would not be able to operate the Flint Water Plant in which we have invested over $40 million per MDEQ mandates over the past ten years. Finally, although DWSD shows this as an option and supplied a per month cost projection for the first year, no total costs over the life of the contract were provided.

Scenario 2: "Full Service" Water Supply

This offer was also rejected. DWSD would supply water to Flint/Genesee the same way they currently are today. They would change the method of calculating our bill. The offer would provide a $1.00 per ccf reduction on our usage for the first year, providing a 30 year contract is signed.

After review of the offer, Flint/Genesee has the following concerns:

1. DWSD's offer is a framework subject to negotiations and is not a firm offer.

2. DWSD's offer is based on 40.6 mgd, the KWA plan is based on 60 mgd. Flint/Genesee last summer hit the peak of 40.6 mgd and this DWSD offer provides no room for growth. Growth would result in penalties or added cost.

3. DWSD's offer does not include a guaranteed rate for years two through thirty, nor does it provide a maximum annual increase.

4. DWSD's offer does not provide a redundant supply for GCDC.

5. DWSD's offer does not allow for the use of Flint's existing water plant.

6. The offer indicates that the total cost to Flint over the life of the contract would be $587,990,665. No indication of what annual rate of increase was used in this projection. Flint can only assume it is 4.4% based on the Tucker Young report. It is also based on 40.6 mgds. KWA's proposal is for $649,775,166 based on 60mgds (33% more). Based on 60 mgds DWSD's proposal would be $868,950,738.

On a final note, Flint/Genesee has great concern over the accuracy of the figures provided by DWSD. Attachment 1 indicates that our joint annual cost to DWSD is $50 million; actual cost is less than $25 million. Attachment 2 indicates $800 million in savings over the next 30 years. That is greater than the total cost we would pay DWSD.

Therefore, I will sign the resolution to join KWA at the close of business today.

Sincerely,

Edward J. Kurtz
Emergency Manager

City of Detroit
Water and Sewerage Department
Office of the Director

735 Randolph Street
Detroit, Michigan 48226
www.detroitmi.gov

April 17, 2013

RECEIVED
CITY OF FLINT
CITY CLERK'S OFFICE
2013 APR 18 AM 11:33

Via Certified Mail and Electronic Delivery

Ms. Inez M. Brown
City Clerk
City of Flint
2nd Floor, City Hall
1101 S. Saginaw Street
Flint, Michigan 48502

Dear Ms. Brown:

Regarding: Termination of Contract for the Provision of Water Services by the City of Detroit, Water and Sewerage Department

On December 20, 1965, the City of Detroit, through its Board of Water Commissioners, (DWSD) and the City of Flint, Michigan (Flint) entered into a contract for the provision of DWSD treated water to Flint and the distribution by flint of that water to other Genesee County communities. Section 18 of that Agreement[1] provides:

18. The Board [DWSD] shall supply and sell water to the City [Flint] from the water system of the City of Detroit, and the City shall receive and purchase such water in accordance with the terms of this Agreement for an indefinite period of time but at least for a period of thirty-five (35) years from the date hereof. This Agreement may be terminated by either party after expiration of said 35-year period, upon one year's written notice served upon the other party by delivering the same to the Secretary of the Board or to the Clerk of the City as the case may be, or at any time upon mutual consent of both parties.

Please take notice that pursuant to this section, 18, of the above-referenced Agreement, DWSD is terminating this Agreement one year from today's date (April 17, 2014).

Sincerely yours,

Sue F. McCormick
Director

[1] Although the Agreement between DWSD has been subsequently amended, Section 18 remains unchanged and in full effect.

From: Agen, Jarrod (GOV)
Sent: Tuesday, October 20, 2015 8:59 AM
To: Wurfel, Sara (GOV); Murray, David (GOV)
Subject: Fwd: Earley Flint Water OpEd-FOR REVIEW AND INPUT

Can you send me the oped? It's not in Dennis' email.

Begin forwarded message:

From: "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>
Date: October 20, 2015 at 8:32:18 AM EDT
To: "Baird, Richard (GOV)" <bairdr@michigan.gov>, "Saxton, Thomas (Treasury)" <SaxtonT@michigan.gov>, "Khouri, Nick (TREASURY)" <KhouriN@michigan.gov>, "Stanton, Terry A. (Treasury)" <StantonT@michigan.gov>, "Workman, Wayne (TREASURY)" <WorkmanW@michigan.gov>, "Wurfel, Sara (GOV)" <Wurfels@michigan.gov>, "Murray, David (GOV)" <MurrayD1@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>
Subject: RE: Earley Flint Water OpEd-FOR REVIEW AND INPUT

I know that no one is going to want to do this, but I don't feel that it is unfair for Darnell to set the record straight. This should be a decision for the G, Jarrod and Dan, however, my guess is that Darnell is not going to quietly accept the abuse of the Flint people without having his voice heard.

From: Michelle Zdrodowski [mailto:michelle.zdrodowski@detroitk12.org]
Sent: Monday, October 19, 2015 5:13 PM
To: Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Paul Conners <connersp@michigan.gov>; Saxton, Thomas (Treasury) <SaxtonT@michigan.gov>; Khouri, Nick (TREASURY) <KhouriN@michigan.gov>; Stanton, Terry A. (Treasury) <StantonT@michigan.gov>; Workman, Wayne (TREASURY) <WorkmanW@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; haddenf@michigan.gov
Cc: Darnell Earley <darnell.earley@detroitk12.org>; Kelly Rossman-McKinney <krossman@truscottrossman.com>
Subject: Earley Flint Water OpEd-FOR REVIEW AND INPUT

All,

Darnell Earley asked that I send you the draft of an OpEd regarding the Flint Water issue that he would like to send to the media this week.

He is seeking your input before sending, and is looking for any feedback you might have by tomorrow afternoon. He has intentionally placed it on his EM letterhead as he is still acting in the capacity of an EM.

Thank you.

Michelle Z.

Michelle A. Zdrodowski
Executive Director of Communications
Detroit Public Schools
3011 W. Grand Boulevard, 14th Floor
Detroit, MI 48202
313.873.3238, office
[redacted]

From: Agen, Jarrod (GOV)
Sent: Tuesday, October 20, 2015 12:25 PM
To: Muchmore, Dennis (GOV)
Cc: Baird, Richard (GOV); Wurfel, Sara (GOV); Murray, David (GOV); Clement, Elizabeth (GOV)
Subject: Re: Earley Flint Water OpEd-FOR REVIEW AND INPUT

I'll raise it with the Governor at Comms Update today.
But I'm fine with the op-ed, minus the Ghandi quote.

On Oct 20, 2015, at 8:32 AM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:

> I know that no one is going to want to do this, but I don't feel that it is unfair for Darnell to set the record straight. This should be a decision for the G, Jarrod and Dan, however, my guess is that Darnell is not going to quietly accept the abuse of the Flint people without having his voice heard.
>
> ---
>
> **From:** Michelle Zdrodowski [mailto:michelle.zdrodowski@detroitk12.org]
> **Sent:** Monday, October 19, 2015 5:13 PM
> **To:** Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Paul Conners <connersp@michigan.gov>; Saxton, Thomas (Treasury) <SaxtonT@michigan.gov>; Khouri, Nick (TREASURY) <KhouriN@michigan.gov>; Stanton, Terry A. (Treasury) <StantonT@michigan.gov>; Workman, Wayne (TREASURY) <WorkmanW@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; haddenf@michigan.gov
> **Cc:** Darnell Earley <darnell.earley@detroitk12.org>; Kelly Rossman-McKinney <krossman@truscottrossman.com>
> **Subject:** Earley Flint Water OpEd-FOR REVIEW AND INPUT
>
> All,
>
> Darnell Earley asked that I send you the draft of an OpEd regarding the Flint Water issue that he would like to send to the media this week.
>
> He is seeking your input before sending, and is looking for any feedback you might have by tomorrow afternoon. He has intentionally placed it on his EM letterhead as he is still acting in the capacity of an EM.
>
> Thank you.
>
> Michelle Z.
>
> **Michelle A. Zdrodowski**
> Executive Director of Communications

Detroit Public Schools
3011 W. Grand Boulevard, 14th Floor
Detroit, MI 48202
313.873.3238, office
[redacted]

From: Agen, Jarrod (GOV)
Sent: Tuesday, October 20, 2015 5:19 PM
To: Bedan, Morgan (GOV)
Subject: For Flint After Action meeting
Attachments: PR 151020 Flint after action.docx; Kolb Resume.pdf; CV_Davis M_01Oct2015.pdf; EPR_RESUME_COSA-EXP WIT_MASTER II.doc

Attached is a draft press release to be reviewed with the after action team tomorrow morning.

In addition, Rich & Harvey are vetting & reaching out to two potential Flint residents to join the task force:

1) Dr. Lawrence Reynolds, MD of Mott Children's Hospital, long standing and respected member of the Flint community, speaks his mind and very professional.

2) Dr. Clarence Philips, MD of the Hamilton Health Center that serves the indigent population in Flint. Again, long standing and respected member of the Flint community, speaks his mind and very professional.

Depending on which one is selected, Rich will invite them to the meeting tomorrow by phone or in person.

Attached are resumes for Kolb, Dr. Davis, and Eric Rothstein.

Draft Agenda:

1) Introductions
2) Mission of Task Force
3) Background Info
4) Discussion of Timeline
5) Q & A from Task Force Members
6) Communications Strategy/Review Press Release

Suggested Goals for Task Force:

1) Thorough review of all steps taken in Flint regarding switch to Flint River and back GLWA.
    a. Create Timeline of actions
    b. Establish why each action was taken
2) Review of role of Feds, EM, State, City Council, and Mayor in process.
    a. Establish best practices for Feds, State, Local, and EM to work together in future situations
    b. Indicate where coordination could have been and should be improved
3) Review of DEQ & DHHS actions & protocols
    a. Did DEQ & DHHS follow the proper procedures?
    b. Do the procedures need to change?
4) Provide guidance for switch back to GWLA
    a. Ensure proper corrosion controls & testing is in place
    b. Highlight steps for eventual switch to Karegnondi

5) Testing Beyond Flint
    a. What practices need to change in communities outside of Flint?
    b. What change in law is recommended to ensure all Michiganders are drinking clean water?

Suggested Timeline:

The task force members have indicated that 2 months is the earliest possible time to properly conduct a full after action report. In reality, they suggest 3 months is more feasible. Given the holidays, a 2 month timeline puts us roughly right around Christmas. I would suggest we set a 3 month goal.

Oct 21: After Action Team Announced
Jan 8: Preliminary After Action Report Submitted for Internal Review
Jan 22: Final After Action Report Submitted
Week of January 25: Report Released

RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

BRIAN CALLEY
LT. GOVERNOR

Contacts: Sara Wurfel or Dave Murray 517-335-6397	**FOR IMMEDIATE RELEASE** Wednesday, Oct. 21, 2015

Gov. Rick Snyder announces formation of Flint Water After Action Report Commission

Experts will provide ongoing monitoring of city water system

LANSING, Mich. – Gov. Rick Snyder today announced a new task force to review the state's actions regarding water usage and testing in Flint. The commission will conduct a thorough review and lay out recommendations on future guidelines for water testing. It will also monitor the transition of Flint's city water system back to the Great Lakes Water Authority, and its eventual transition to the Karegnondi Water Authority pipeline.

The commission will be co-chaired by Ken Sikkema of Public Sector Consultants and Chris Kolb, of the Michigan Environmental Council. Also serving will be Dr. Matthew Davis of the University of Michigan Health System, and Eric Rothstein, of the Galardi Rothstein Group.

"As stated previously, transitioning back to the Great Lakes Water Authority is a good first step to protecting public health in Flint, but it's not the last step," Snyder said. "Bringing in outside experts to evaluate our actions and help monitor and advise on technical issues will be key to continuing work on the comprehensive action plan and ensuring safe drinking water for all the citizens of Flint."

Ken Sikkema is a senior policy fellow at Public Sector Consultants, where he specializes in public finance, environment, and energy policy. Prior to joining the firm, Sikkema served in both the Michigan House and Senate, culminating with four years as Senate Majority Leader. He has also served as both an adjunct and visiting professor at Grand Valley State University.

Chris Kolb is president of the Michigan Environmental Council, a statewide coalition of 70 environmental, public health and faith-based nonprofit groups. Before joining the MEC, Kolb represented Ann Arbor in the state House for six years and served eight years on the Ann Arbor City Council. He has been president of the MEC for eight years.

Matthew Davis, M.D., M.A.P.P., is Professor of Pediatrics and Internal Medicine at the University of Michigan Health System and Professor of Public Policy at the Gerald R. Ford School at the University of Michigan, having joined the faculty in 2000. He is the founding Director of the C.S. Mott Children's Hospital National Poll on Children's Health and the National Voices Project. Dr. Davis also previously served as the Chief Medical

Executive of the Michigan Department of Community Health/Department of Health and Human Services.

Eric Rothstein is a national water issues consultant and principal at the Galardi Rothstein Group. He served as an independent advisor on the creation of the Great Lakes Water Authority. Rothstein also has served as Jefferson County, Alabama's rate consultant and municipal advisor for litigation related to the county's bankruptcy and issuance of $1.7 billion in sewer warrants and led strategic financial planning for the City of Atlanta's Department of Watershed Management. He has more than 30 years of experience in water, wastewater and stormwater utility finance and rate-making assessments.

As Gov. Snyder previously stated, reconnecting with the authority will not completely resolve the city's problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control.

To best protect public health, state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead exposure. The Michigan Departments of Environmental Quality is continuing to provide free water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

####

Chris Kolb

[redacted]

EDUCATION:

The University of Michigan, Ann Arbor, Michigan
Bachelor of Science in Natural Resources, GPA 3.55
Dean's List, Honors Society

Emory University, Atlanta, Georgia
Graduate studies in Political Science focusing on Quantitative Analysis, and Interest Group Politics; Scholarship, Grant, and Fellowship Recipient. Accepted into advanced studies for PhD.

EXPERIENCE:

Executive Director, Current
Unity Michigan, Ann Arbor, Michigan

Responsible for the organization and implementation of the new statewide campaign to create a progressive Michigan by advancing lesbian, gay, bisexual, and transgender (LGBT) and social justice values and issues. Coordinate and implement the collaborative efforts of five leading LGBT and equality organizations; ACLU of Michigan, Affirmations, Michigan Equality, SPICE, and Triangle Foundation. Lead the campaign's research and subsequent activities in Michigan. Successfully developed and implemented a primary election strategy in legislative races. Engage in successful communications with the LGBT community, the campaign's supporters and partners, and supportive national groups. Coordinate a broad, effective campaign with consultants, including coalition building, list building, voter contact and get-out-the-vote activities. Represent the organization at meetings and events with the public and press.

Vice President for Public Affairs, 2007-2008
Early Childhood Investment Corporation, Lansing Michigan

Directed all public affairs activities in a statewide effort to improve the status of Michigan's children, aged zero to five. Developed and implemented public policy at the federal, state and local levels working with key decision-makers, staff and public. Educated and informed elected officials on the importance of investing in early childhood. Secured increased funding over $11 million, including $5.75 million for ECIC. Helped to develop Governor's $30 million early childhood initiative outlined in Fiscal 2009 budget. Successfully planned 2008 Star Power Rally at the Capitol for over 500 early childhood supporters. Coordinated activities of the Michigan Legislative Children's Caucus; worked directly with state departments involved in early childhood development including Community Health, Education, Human Services, and Labor and Economic Growth; provided speakers and testimony to legislative hearings to inform and educate Legislature; reviewed and monitored all legislation impacting early childhood development; provided training to local Great Start Collaboratives to work with their local, state, and federal decision-makers; coordinated development of an early childhood public policy agenda; and, worked to increase knowledge of Legislature and public on importance of early childhood development, advance public education, and increase public and private investment in Michigan's children.

State Representative, 2001-2006
53rd State House District, Lansing, Michigan

Three-term State Representative, appointed for two terms (2003-2006) to the House Appropriations Committee served as the Ranking Democrat on four appropriations

subcommittees: Economic Development, Department of Environmental Quality, Higher Education, and the Department of Human Services, and served on the Corrections subcommittee (2003-4). In second term, was appointed by Governor Granholm to serve on the Michigan Land Use Leadership Council to develop a report and recommendations for the Governor and Legislature on land use issues. Appointed Ranking Democrat on the House Committee on Land Use and Environment (2001-2002), and served on the House Commerce Committee (2001-2002). Authored numerous legislation enacted into law, including legislation creating joint planning commissions, Land Bank Fast Track authorities, open space ordinance requirement for local governments, lead poisoning prevention for children, regulation of polybrominated biphenyl ethers (PBDEs), renewal of the baseline environmental assessment fee, establishment of the refined petroleum product cleanup program to help clean up leaking underground storage tanks, welfare reform and a bill to help create the Fire Services Bureau. Legislative focus included land use and planning, the environment, natural resources, toxins, children's health, alternative energy, economic development, mental health, higher education, and civil rights.

Legislative Assistant, 1999-2000
52nd District, Lansing Michigan
Served as a Legislative Assistant to Representative John Hansen, provided policy research, constituent services, reviewed legislation and executive budget data, and attended meetings on behalf of the Representative in the District. Contacted constituents and interest groups, assisted with amendments and bill development.

Environmental Consultant
Ann Arbor, Michigan 1993-1999

Provided consulting services in the environmental management and compliance field to businesses in Michigan and Ohio. Consulting services specialized in solid waste management, waste reduction and recycling, environmental compliance and permitting, worker safety training, and project management including on-site facility management.

HONORS:

Legislator of the Year, Michigan Fire Chiefs, 2006
Presidents Award, Michigan Fire Inspectors Society, 2006
Co-Chair of the Fire Service Legislative Caucus
The 2005 Legislative Award from the Michigan Audubon Society
Liberty Bell Award, Washtenaw County Bar Association, 2004
Legislative Award from the National Alliance on Mental Illness, 2004
Environmental Stewardship Award, Sierra Club, Mackinac Chapter, 2004
Legislator of the Year, U of M Students of Choice and College Democrats, 2003
Freedom Award, St. Mary's Christian Fellowship, 2002
Legislative Award from the Michigan League of Conservation Voters, 2002
Henry Toll Fellowship Leadership Class of 2002, Council of State Governments (CSG)
Legislator of the Year, Association for Children's Mental Health, 2001
Bowhay Institute for Legislative Leadership, CSG – Midwest, 2001
Next Generation Leadership Class at East-West Center, University of Hawaii, 1996

COMMUNITY ACTIVITES:

Ann Arbor City Councilmember, 1993-2000, Mayor Pro-tem, 1994-2000.

HIV/AIDS Resource Center Board of Directors, Chair; Girl Scout Council of Huron Valley, Board of Directors; previously served as Co-Chair of the Affordable Housing Task Force, Washtenaw County Solid Waste Planning Commission, and Michigan Municipal League's Transportation and Environmental Committee; volunteered for organizations involving environment, youth, hunger, LGBT, housing, health care, veterans and religious organizations.

Matthew M. Davis, M.D., M.A.P.P.
Professor of Pediatrics and Communicable Diseases
Professor of Internal Medicine
Professor of Public Policy
Professor of Health Management and Policy
University of Michigan
Email: [redacted]

EDUCATION

HIGH SCHOOL	Eden Senior High School (1981-1985) Eden, New York	
UNDERGRADUATE	Swarthmore College (1985-1989) Swarthmore, Pennsylvania Major Field: Biology	BA with honors, 1989
PROFESSIONAL	Harvard Medical School (1990-1994) Boston, Massachusetts	MD *cum laude*, 1994
	Irving B. Harris School of Public Policy Studies (1999-2000) University of Chicago Chicago, Illinois	MAPP, 2000

POSTDOCTORAL TRAINING

Internship in Internal Medicine and Pediatrics — June 1994 - June 1995
Brigham & Women's Hospital and The Children's Hospital
Boston, Massachusetts

Residency in Internal Medicine and Pediatrics — June 1995 - June 1998
Harvard Combined Residency in Medicine and Pediatrics
Boston, Massachusetts

Acting Chief Residency in Primary Care/Internal Medicine — July 1997 - November 1997
Brigham and Women's Hospital
Boston, Massachusetts

Robert Wood Johnson Foundation Clinical Scholars Program — July 1998 - June 2000
University of Chicago
Chicago, Illinois

CERTIFICATION AND LICENSURE

State of Massachusetts full medical license #155272	1997 - 1998
State of Illinois full medical license #0036-098102	1998 - 2001
State of Michigan full medical license #J693073	2000 -
Drug Enforcement Administration Certificate #BD5935575	2000 -
Diplomate of the American Board of Pediatrics, #064080 - Recertified through 12/31/2017	1998 -
Diplomate of the American Board of Internal Medicine, #194261 - Recertified through 12/31/2021	1999 -

ACADEMIC APPOINTMENTS

Lecturer in Pediatrics and Communicable Diseases and Internal Medicine University of Michigan	July 2000 - February 2002
Core Faculty, Child Health Evaluation and Research (CHEAR) Unit Division of General Pediatrics, University of Michigan	July 2000 -
Core Faculty, Pediatric Health Services Research Fellowship Program, Division of General Pediatrics University of Michigan	July 2000 -
Affiliated Faculty, Robert Wood Johnson Clinical Scholars Program University of Michigan	July 2000 - June 2004
Assistant Professor in Pediatrics and Communicable Diseases and Internal Medicine University of Michigan	February 2002 - August 2006
Affiliated Faculty, National Poverty Center, Gerald R. Ford School of Public Policy University of Michigan	July 2003 -
Assistant Professor of Public Policy, Gerald R. Ford School of Public Policy University of Michigan	January 2004 - September 2006
Core Faculty, Robert Wood Johnson Clinical Scholars Program University of Michigan	July 2004 -
Associate Professor of Pediatrics and Communicable Diseases, Internal Medicine, and Public Policy University of Michigan	September 2006 - August 2013
Professor of Pediatrics and Communicable Diseases, Internal Medicine, and Public Policy University of Michigan	September 2013 -
Professor of Health Management and Policy School of Public Health, University of Michigan	January 2014 -

ACADEMIC ADMINISTRATIVE APPOINTMENTS

Co-Director, Pediatric Health Services Research Fellowship Program, Division of General Pediatrics, University of Michigan	July 2003 - June 2006
Co-Director, Resident Elective in Pediatric Health Services Research for Under-represented Minorities, Division of General Pediatrics, University of Michigan	July 2003 - June 2005
Director, Resident Elective in Pediatric Health Services Research for Under-represented Minorities, Division of General Pediatrics, University of Michigan	July 2005 -
Director, Fellowship Program in Pediatric Health Services Research, Division of General Pediatrics, University of Michigan	July 2006 -
Associate Director, Robert Wood Johnson Clinical Scholars Program, University of Michigan	July 2007 - June 2008
Co-Director, Robert Wood Johnson Foundation Clinical Scholars Program, University of Michigan	July 2008 -
Co-Director, Child Health Initiative Working Group, Michigan Institute for Clinical & Health Research (CTSA), University of Michigan	May 2011 - Sep 2011
Director, Child Health Initiatives Working Group, Michigan Institute for Clinical & Health Research (CTSA), University of Michigan	Sep 2011 - March 2013
Associate Director, Michigan Institute for Clinical & Health Research (CTSA), University of Michigan	Jan 2012 - March 2013
Faculty Director, Path of Excellence in Health Policy—Programs, Systems, and Economics, University of Michigan Medical School	November 2014 -
Director, Communities Engagement Core and Participant Recruitment Core, Michigan Institute for Clinical & Health Research (MICHR)	Jan 2015 -
Deputy Director, Institute for Healthcare Policy and Innovation, University of Michigan	May 2015 -

CLINICAL/HOSPITAL APPOINTMENTS

Clinical Instructor in Pediatrics and Internal Medicine, Harvard Medical School	June 1994 - June 1998
Clinical Instructor in Pediatrics and Internal Medicine, University of Chicago, Pritzker School of Medicine	July 1998 - June 2000
Staff Physician in Pediatrics and Communicable Diseases and Internal Medicine, University of Michigan Health System	July 2000 -

PUBLIC HEALTH / HEALTH POLICY APPOINTMENTS

Chief Medical Executive, Department of Community Health and Department of Health and Human Services, State of Michigan	March 2013 - April 2015

GRANT SUPPORT

Current

Principal Investigator: *National Voices Project*
W.K. Kellogg Foundation
Total cost: $2,135,229. July 2011 - June 2016.

Principal Investigator: *C.S. Mott Children's Hospital National Poll on Children's Health*
University of Michigan Health System
Total cost: $1,868,800. July 2010 - June 2016.

Principal Investigator: *Health Homes Project – Planning and Evaluation*
Michigan Department of Health and Human Services
Total cost: $272,000. May 2015 - September 2016.

Co-Investigator (PI: G Mashour): *Michigan Institute for Clinical and Health Research*
NIH / National Center for Advancing Translational Science
Total cost: $48,788,667. June 2012 - May 2017.

Recent

Principal Investigator: *Pediatric Health Services Research Training* (T32)
Eunice Kennedy Shriver National Institute for Child Health and Human Development
Total cost: $1,271,100. May 2010 - June 2015.

Principal Investigator: *Coursera Initiative: Understanding and Improving the US Healthcare System.*
University of Michigan Medical School.
Total cost: $10,000. January 2013 - December 2013.

Principal Investigator: *The Michigan Child Health Research Priorities (M-CHRP) Project*
Department of Pediatrics and Communicable Diseases
Total cost: $20,000. February 2012 - February 2013.

Principal Investigator: *Economics of Vaccines - Tracking Vaccines under Development to Determine Cost Drivers of the Vaccine Development and Approval Process*
Centers for Disease Control and Prevention
Total cost: $498,038. September 2009 - September 2011.

Principal Investigator: *Voices National Poll*
W.K. Kellogg Foundation
Total cost: $100,000. April 2010 - September 2010.

Principal Investigator: *Innovation Bridge – Linking Biotech Breakthroughs to Emerging Vaccine Manufacturers*
Bill and Melinda Gates Foundation
Total cost: $100,000. October 2008 - September 2009.

Principal Investigator: *Using MEPS Data to Inform Public-Plan Consumerism*
Agency for Healthcare Research and Quality
Total cost: $99,999. July 2007 - June 2008.

Principal Investigator: *Insurance Coverage of Child, Adolescent, and Adult Vaccines*
Partnership for Prevention
Total cost: $124,995. May 2006 - October 2007.

Principal Investigator: *Health Tracking*
Center for Studying Health System Change
Total cost: $97,171. November 2006 - December 2007.

Principal Investigator: *Future Costs of Childhood Obesity: Estimates and Implications*
United States Department of Agriculture
Total cost: $150,000. October 2004 - September 2006.

Principal Investigator: *Market Forces or Misinformation? Exploring the Link Between Self-Insuring Employers and Underinsurance*
Robert Wood Johnson Foundation Generalist Physician Faculty Scholars Program
Total cost: $299,769. July 2002 - June 2006.

Principal Investigator: *How Adult Diabetes Interventions Affect Children*
Blue Cross Blue Shield of Michigan Foundation
Total cost: $10,000. September 2005 - June 2006.

Principal Investigator: *Summer Workshop in Michigan Medicaid Research*
National Poverty Center
Total cost: $10,000. May 2005 - April 2006.

Principal Investigator: *Increasing Costs of Public-Sector Purchase of Childhood Vaccines*
Centers for Disease Control and Prevention.
Total cost: $200,693. September 2001 - September 2003.

Principal Investigator: *Evaluation of the Etiologies of Transitions in Children's Insurance Status and Effects on Healthcare Utilization and Expenditures*
Economic Research Initiative on the Uninsured (Robert Wood Johnson Foundation)
Total cost: $63,961. April 2003 - December 2004.

Co-Investigator: *Variation in Immunization Practices*
(PI: Gary L. Freed, MD, MPH)
Centers for Disease Control and Prevention
Total cost: $1,400,000. September 2004 - October 2013.

Co-Investigator: *BMI2 – Brief Motivational Interviewing to Reduce Child BMI*
(PI: Kenneth Resnicow, PhD)
Eunice Kennedy Shriver National Institute for Child Health and Human Development
Total cost: $3,416,177. April 2008–June 2013.

Co-Investigator: *Mobilizing Peer Support for Effective Congestive Heart Failure Self-Management*
(PI: Michele Heisler, MD, MPA)
National Heart, Lung, and Blood Institute
Total cost: $2,018,444. July 2006 - June 2011.

Co-Investigator and Faculty Mentor: *OB CARES: The Obstetric Clinics and Resources Study*
(PI: Christie Lancaster, MD, MSc)
Michigan Institute for Clinical & Health Research
Total cost: $4,644. February 2010 - June 2011.

Co-Investigator: *Pediatric and Managed Care Issues—Medicaid*
(PI: Gary L. Freed)
State of Michigan Department of Community Health
Total cost: $1,087,676. October 2005 - September 2006.

Co-Investigator: *Enhancing Private Provider Immunization Recall*
(PI: Kevin J. Dombkowski, DrPH)
Centers for Disease Control and Prevention
Total cost: $600,000. October 2006 – November 2009.

Co-Investigator and Faculty Mentor: *A National Study of Health Care Among Foster Children*
(PI: Sandra H. Jee, MD, MPH)
Ambulatory Pediatric Association
Total cost: $10,000. July 2003 – June 2004.

Co-Investigator and Faculty Mentor: *Healthcare Expenditures and Utilization Among Overweight Youth*
(PI: Iris R. Mabry, MD, MPH)
National Poverty Center
Total cost: $9,640. July 2003 – June 2004.

HONORS AND AWARDS

National Scholar, Swarthmore College	1985 - 1989
Garrigues Music Scholar, Swarthmore College	1987 - 1989
Ivy Award (for contributions to the college community), Swarthmore College	1989
Phi Beta Kappa, Swarthmore College chapter	1989
Paul Dudley White Fellowship in International Health, Harvard Medical School	1991, 1993
Pediatric Prize, New England Pediatric Society	1994
Arnold Dunn Award (for compassionate patient care), Brigham and Women's Hospital	1995
Irving B. Harris Fellow in Child Policy, University of Chicago	1999 - 2000
Outstanding Educator, Division of General Pediatrics, University of Michigan	2001
Young Investigator Award in Clinical and Health Services Research, Department of Pediatrics, University of Michigan	2001
Milton W. Hamolsky Junior Faculty Award, Society of General Internal Medicine, annual national meeting	2002
Outstanding Abstract, Academy of Health Services Research and Health Policy, annual national meeting	2002
Young Investigator Award in Clinical Research, Department of Pediatrics, University of Michigan	2003
Teaching Honor Roll, Gerald R. Ford School of Public Policy, University of Michigan	2004 - 2006, 2008, 2010, 2012, 2013, 2015
Token of Appreciation from Medical Students, University of Michigan Medical School	2007, 2009
National Nemours Award in Child Health Services Research	2007
Featured Vaccinologist, *Human Vaccines*	2010
Associate Chair for Research Award, Department of Pediatrics and Communicable Diseases, to support *The Michigan Child Health Research Priorities (M-CHRP) Project*	2012
Distinguished Mentor Award, Michigan Institute of Clinical and Health Research, University of Michigan	2012
Mentor Recognition for Fellow's Research Award presented to Stephen W. Patrick, Ambulatory Pediatric Association	2012
Principal Investigator, "WellSpringboard" – First Place Winner in Patient-Centered Outcomes Research Institute Challenge Initiative	2013
Principal Investigator, "WellSpringboard" – Second Place Winner in Patient-Centered Outcomes Research Institute Matchmaking App Challenge	2014

Snyder Memorial Lecturer in Medicine and the Humanities, Swarthmore College, Swarthmore, PA	2014
Visiting Professor, Royal Children's Hospital, Melbourne, Australia	2014
Inaugural Visiting Professor in Internal Medicine and Pediatrics, Children's Hospital and Brigham & Women's Hospital, Harvard Medical School, Boston, MA	2015
Visiting Professor, PolicyLab, Children's Hospital of Philadelphia Philadelphia, PA	2015
Regents' Award for Distinguished Public Service, University of Michigan	2015

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

Society of General Internal Medicine	1998 -
Society for Medical Decision-Making	1999 -
Ambulatory Pediatric Association / Academic Pediatric Association	2000 -
Association of Teachers of Preventive Medicine	2001 -
AcademyHealth (formerly Association of Health Services Research and Health Policy)	2001 -
American College of Physicians / American Society of Internal Medicine	2002 -
Society for Pediatric Research (elected)	2004 -

SCIENTIFIC ACTIVITIES

Chair, Planning Committee for the Robert Wood Johnson Clinical Scholars Program annual Health Economics Symposium	2000
Peer Reviewer, *Journal of the Ambulatory Pediatric Association/ Ambulatory Pediatrics/Academic Pediatrics*	2000 -
Peer Reviewer, *Journal of General Internal Medicine*	2000 -
Peer Reviewer, *Up-To-Date*	2000 - 2003, 2010
Peer Reviewer, *Archives of Pediatric and Adolescent Medicine / JAMA-Pediatrics*	2001 -
Peer Reviewer, *JAMA*	2001 -
Peer Reviewer, *Journal of Health Policy, Politics, and Law*	2001 -
Peer Reviewer, *Annals of Internal Medicine*	2002 -
Peer Reviewer, *American Journal of Managed Care*	2003 -
Peer Reviewer, National Poverty Center grants program	2003 - 2006
Member, Editorial Board, *Ambulatory Pediatrics*	2005 - 2007
Peer Reviewer, Ambulatory Pediatric Association Young Investigators Grants Program	2005 - 2007
Peer Reviewer, *Journal of Policy and Management*	2005 -
Peer Reviewer, *Health Services Research*	2005 -
Peer Reviewer, *Vaccine*	2005 -
Lead Author, Guidelines for Prevention of Childhood Obesity, American Medical Association and American Academy of	2005 - 2007

Pediatrics	
Member, Influenza Vaccine Group, American Heart Association	2006 -
Peer Reviewer, *Health Affairs*	2006 -
Study Section Member – Health, Behavior, and Context Subcommittee, National Institutes of Health	2006
Senior Health Researcher, Center for Studying Health System Change, Washington, DC	2006 - 2007
Member, Editorial Board, *Archives of Pediatrics and Adolescent Medicine / JAMA-Pediatrics*	2007 - 2013
Founding Director, C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan	2007 -
Peer Reviewer, *New England Journal of Medicine*	2008 -
Founding Web Editor, *Archives of Pediatrics and Adolescent Medicine / JAMA-Pediatrics*	2008 - 2013
Study Section Member – Disease, Disability, and Injury Prevention and Control Special Emphasis Panel, Centers for Disease Control and Prevention	2009
Member, Expert Advisory Committee, Measuring Pediatric Access to Specialty Health Care by Insurance Status (PI: Karin Rhodes, MD, MS; funded by State of Illinois)	2009 - 2012
Co-Guest Editor, Special Issue on "Bridging the Gap Between Research and Health Policy," *HSR – Health Services Research*	2010 - 2012
Chair, National Center for Chronic Disease Prevention and Health Promotion Special Emphasis Panel, Centers for Disease Control and Prevention	2011
Member, Special Advisory Panel to the Director of the National Center for Advancing Translational Sciences, National Institutes of Health	2013 - 2014
Member, Special Review Panel, National Institute of Diabetes and and Digestive and Kidney Diseases, National Institutes of Health	2015

TEACHING ACTIVITIES

Intramural Invited Presentations (selected)

"Teen problem-solving and its impact on tobacco use." Grand Rounds, Department of Pediatrics, Pritzker School of Medicine, University of Chicago.	1999
Health Services Research Seminar (semi-annually), Child Health Evaluation and Research (CHEAR) Unit, Division of General Pediatrics, University of Michigan	2000 -
"Are parental depressive symptoms linked to underimmunization of young children?" Grand Rounds, Department of Pediatrics, University of Michigan	2001
"Smallpox: new challenges from an old foe," Grand Rounds, Department of Pediatrics, University of Michigan	2002

"The Medicare Prescription Drug Improvement and Modernization Act of 2003: Policy Implications." Faculty panelist, University of Michigan.	2004
"Obesity trends during childhood and adolescence: insights for clinicians and policymakers", Grand Rounds, Department of Pediatrics, University of Michigan	2005
"Obesity trends during childhood and adolescence: findings from the PSID-CDS", invited speaker, Series on the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan	2005
"Are the best vaccines still ahead, or already behind us? Costs, contradictions, and controversies in childhood immunization," Grand Rounds, Department of Pediatrics and Communicable Diseases	2008
"Health and Health Care in Michigan," Seminars in Medicine for M3 curriculum, University of Michigan Medical School	2008
"Health Care Reform Proposals of the 2008 Candidates for President," Seminars in Medicine for M3 curriculum, University of Michigan Medical School	2008
"Health Care Platforms of the 2008 Presidential Candidates," expert panel convened by the Roosevelt Institution, University of Michigan	2008
"Policy Advice for the Newly Elected President," expert panel convened by Dean Susan Collins of the Gerald R. Ford School of Public Policy, University of Michigan	2008
"When Families Refuse Vaccines," presentation to the Health Sciences Scholars Program for Undergraduates, University of Michigan	2009
"Dilemmas in Development and Delivery of Vaccines," Bioethics Grand Rounds, University of Michigan Health System.	2009
"Health Care Reform in the US Under President Obama and a Democratic Congress," Special Guest Lecturer, Program in Public Policy and International Affairs, University of Michigan	2009
"Fresh Challenges in Development and Delivery of Vaccines," Grand Rounds, Department of Pediatrics and Communicable Diseases, University of Michigan	2009
"Health Care Reform: Proposals, Politics, and Prospects," Special Panel Symposium, Gerald R. Ford School of Public Policy, University of Michigan	2009
"What Type of Health Care Reform Would be Best for Primary Care?" Featured Speaker for Primary Care Week, University of Michigan Medical School	2009
"Financing Development of Drugs and Vaccines for Neglected Diseases," Faculty Commentator, Gerald R. Ford School of Public Policy, University of Michigan	2010
"Making Sense of Health Policy Reform: Latest Events, Greatest Hopes," Grand Rounds, Department of Pediatrics and	2010

Communicable Diseases

"(False) Summits and (True) Profits: Health Care Reform in the United States," Grand Rounds, Department of Internal Medicine	2010
"Public Preferences for Participation in Medical Research," Grand Rounds, Department of Pediatrics and Communicable Diseases	2011
"Quality of Health Care and the Affordable Care Act," guest speaker in Health Care Reform in the U.S., taught by Jill Horwitz at University of Michigan Law School	2011
"Policy Analysis vs Policy Advocacy," guest speaker in HMP 615-Introduction to Public Health Policy at University of Michigan School of Public Health	2011
"Presidents, Precedents, and Healthcare Reform in the United States," Guest Lecturer in History 234 for undergraduate students at University of Michigan; lead faculty: Joel Howell, MD, PhD	2012 -
"Teen Pregnancy, Infant Mortality and the Public Voice: New Approaches to Old Problems at the Nexus of Maternal and Child Health," Grand Rounds, Department of Obstetrics and Gynecology, University of Michigan Health System	2012
"Priorities for the Health and Healthcare of Michigan's Children: Perspectives from Lansing," Grand Rounds, Department of Pediatrics and Communicable Diseases, University of Michigan Health System	2013
"Presidential Politics for 2016: How Will Health Policy Play a Role?" Grand Rounds, Department of Anesthesiology, University of Michigan Health System	2015
"Health Policymaking in Michigan: a View from the Inside," Grand Rounds, Department of Pediatrics and Communicable Diseases, University of Michigan Health System	2015

Courses and Seminars

Primary Care Internal Medicine weekly morning report, Brigham & Women's Hospital, Boston, Massachusetts	1997
Internal Medicine resident journal club, faculty lead, University of Chicago	1999 - 2000
"Introduction to the Patient: Health Policy," small group section leader, Year 2 curriculum, University of Michigan Medical School	2001
"Medical Decision-Making," small group section leader, Year 2 curriculum, University of Michigan Medical School	2001 - 2003
Public Policy 740, Gerald R. Ford School of Public Policy: "Issues in Child and Family Health Policy," a full-semester, 3-credit course for master's level students	2002 - 2006
"Threats to Successes in Child Health Policy in the United States," instructor for health policy module in the Public Policy and International Affairs program for minority undergraduates at Gerald R. Ford School of Public Policy, University of	2003 - 2004, 2008

Michigan	
"Health Economics and Health Policy," lead instructor for segment of Clinical Foundations of Medicine course, Years 1, 2, and 3 curriculum, University of Michigan Medical School	2006 -
Public Policy 700, Gerald R. Ford School of Public Policy: "Independent Study" for master's level students as 3-credit, full-semester course	2006 -
Public Policy 768, Gerald R. Ford School of Public Policy: "Efforts at Health Care Reform in the United States – Past, Present, and Future," a full-semester, 3-credit course for master's-level students	2008, 2010, 2012, 2013
Public Policy 495, Gerald R. Ford School of Public Policy: "Principles and Realities of Health Care Reform," a full-semester, 3-credit course for upper-level undergraduate students	2008
Health and Health Care Research 740 and 741, Rackham School of Graduate Studies, "Research on Organization, Financing, and Delivery of Health Care," two full-semester 3-credit courses for physician-investigators-in-training	2008 -
"Containing Health Care Costs," originator and lead instructor for annual M2 elective course, 6 hours of class time	2010 - 2014
"History of Health Care Reform in the United States," instructor for health policy module in the Public Policy and International Affairs program for minority undergraduates at Gerald R. Ford School of Public Policy, University of Michigan	2011, 2013, 2015
"Understanding and Improving the US Healthcare System," lead developer and lead faculty for massive open online course provided on the global Coursera platform	2013 -
Public Policy 750, Gerald R. Ford School of Public Policy: "Medicaid as an Innovative and Challenging Safety Net," a half-semester, 1-credit course for master's-level students	2015

Clinical Mentorship

Internal Medicine & Pediatrics residency program, weekly resident continuity clinic preceptor at Canton Health Center, University of Michigan	July 2000 - December 2006
Internal Medicine & Pediatrics residency program, *ad hoc* resident continuity clinic preceptor at Canton Health Center, University of Michigan	January 2007 -

Research Mentorship

Internal Medicine & Pediatrics residency program, resident research mentor, University of Michigan (1-3 residents mentored each academic year)	July 2000 -
Core Faculty, Pediatric Health Services Research Fellowship Program, Division of General Pediatrics, University of Michigan	July 2000 -

(1-4 fellows mentored each academic year)

Affiliated Faculty, Robert Wood Johnson Clinical Scholars Program, University of Michigan (1-2 fellows mentored each academic year)	July 2000 - June 2004
Core Faculty, Robert Wood Johnson Foundation Clinical Scholars Program, University of Michigan (3-10 fellows mentored each academic year)	July 2004 -

COMMITTEE AND ADMINISTRATIVE SERVICE

Admissions Committee, Harvard Medical School	1991 - 1992
Residency Selection Committee, Harvard Combined Program in Medicine and Pediatrics	1994 - 1998
Member, Residency Selection Committee, Departments of Pediatrics and Communicable Diseases and Internal Medicine, University of Michigan	2002 - 2006
Member, Resident Research Committee, Department of Pediatrics, University of Michigan	2003 - 2006
Member of Judging Panel, Annual Resident Research Day, St. Joseph Mercy Hospital, Ann Arbor, Michigan	2004 - 2005
Member, 2006 Annual Meeting Planning Committee, AcademyHealth	2005 - 2006
Lead Faculty Advisor, Medical School and Gerald R. Ford School of Public Policy Dual Degree MD/MPP Program, University of Michigan	2006 -
Pediatric Clinical Research Committee, University of Michigan	2008
Member, External Planning Committee, Annual National Immunization Conference	2008 - 2009
Faculty Lead, Medical School coursework in Health Policy and Health Economics, M1-M3 years, University of Michigan	2008 -
Member, Instructional Track Appointments, Promotions, and Tenure Committee, Department of Pediatrics and Communicable Diseases, University of Michigan	2010 - 2014
Member, Grand Rounds Committee, Department of Pediatrics and Communicable Diseases, University of Michigan	2010 - 2012
Member, Child Health Initiative Working Group, Michigan Institute for Clinical and Health Research (MICHR), University of Michigan	2010 - 2011
Member, Search Committee, Founding Director of the Institute of Healthcare Policy and Innovation, University of Michigan	2010 - 2011
Member, Harvard Medical School Alumni Council	2011 - 2014
Co-Chair, Inaugural Events for the Institute for Healthcare Policy and Innovation, University of Michigan	2012 - 2013
Member, Research and Policy Committee, Center for Healthcare Research and Transformation	2012 -
Member, Selection Committee for the Michigan Institute of Clinical and Health Research (MICHR) Mentor Award	2013 -
Member, Institute Leadership Team, Institute for Healthcare Policy	2013 -

and Innovation, University of Michigan

Member, Search Committee for Associate Dean for Clinical and Translational Research, University of Michigan — 2015

EXTRAMURAL INVITED PRESENTATIONS

"Methodological issues in the application of quality-adjusted life-years to interventions regarding children." Presentation at Environmental Protection Agency of white paper submitted as background for the *Child Health Evaluation Handbook,* Washington, DC. — June 2001

"Vaccine shortages and vaccine economics." Presented at the National Immunization Program, Centers for Disease Control and Prevention, Atlanta, GA. — March 2002

"Increasing costs of public-sector purchase of childhood vaccines." Presented at the National Immunization Program, Centers for Disease Control and Prevention, Atlanta, GA. — March 2003

"Insurance transitions for children and adults." Grand Rounds, Harvard Combined Program in Internal Medicine and Pediatrics, Boston, MA. — June 2003

"Adult vaccine benefit coverage in employer-sponsored health plans." Presented at the National Immunization Program, Centers for Disease Control and Prevention, Atlanta, GA. — March 2004

"Insurance coverage of vaccines." Presented to the National Vaccine Advisory Committee, Washington, DC. — February 2005

"Considering the costs of vaccines." Presented at the National Immunization Program, Centers for Disease Control and Prevention, Atlanta, GA. — March 2005

"Old challenges, new opportunities in insurance coverage for adult vaccines." Presented to the National Vaccine Advisory Committee, Washington, DC. — November 2005

"Addressing children's underinsurance through policy-relevant research." Presented within Pediatric Academic Societies Topic Symposium, "From Health Services Research to Public Policy," at annual PAS meeting, San Francisco, CA. — May 2006

"Counting the costs of childhood obesity." Grand Rounds, Department of Pediatrics, Beaumont Hospital, Royal Oak, MI. — October 2006

"Vaccine financing strategies and industry research opportunities: the global perspective." Plenary presentation at the World Vaccine Congress, Washington, DC. — April 2009

"Innovation Bridge: New vaccines, new partnerships." Plenary presentation at the Developing Country Vaccine Manufacturers Network 10th annual meeting, Beijing, China. — September 2009

"Health care reform in the United States." Featured speaker at town hall meeting, Northville, MI. — October 2009

"Opportunities for health care reform during the Obama — November 2009

administration." Featured speaker at quarterly meeting of the Washtenaw County Medical Society, Ann Arbor, MI.	
"A critical examination of legislative options for health care reform." Department of Internal Medicine Journal Club, Saint Joseph Mercy Health System, Ann Arbor, MI.	December 2009
"Making sense of health policy reform." Grand Rounds, Department of Internal Medicine, Saint Joseph Mercy Hospital, Ann Arbor, MI.	March 2010
"Fresh challenges in the development and delivery of vaccines." Grand Rounds, Department of Pediatrics, Beaumont Hospital, Royal Oak, MI.	June 2010
"Illuminating the global R&D pipeline for prophylactic vaccines." Featured speaker, special presentation, International AIDS Vaccine Initiative, New York, NY.	December 2010
"Understanding challenges and opportunities in research and development of prophylactic vaccines." Featured guest lecturer, Bloomberg School of Public Health, The Johns Hopkins University, Baltimore, MD.	March 2011
"Characterizing and understanding the R&D pipeline for prophylactic vaccines." Presented at National Center for Influenza and Respiratory Diseases, Centers for Disease Control and Prevention, Atlanta, GA.	April 2011
"National Voices Project." Featured panel presenter at America Healing national meeting of grantees of the W.K. Kellogg Foundation, Asheville, NC.	May 2011
"Failings in pediatrics (and what health services research can do about them)." Featured faculty presenter, 1st Annual Child Health Services Research Symposium, Indiana University Purdue University at Indianapolis, Indianapolis, IN.	September 2011
"Addressing significant unmet needs through world class vaccine pipelines." Featured plenary speaker, World Vaccine Congress, Lyon, France.	October 2011
"Challenges and opportunities in research, development and financing of prophylactic vaccines." Featured guest lecturer, Bloomberg School of Public Health, The Johns Hopkins University, Baltimore, MD.	February 2012
"Challenges and successes in new vaccine development for adults." Grand Rounds speaker, Saint John's Hospital, Detroit, MI.	October 2012
"National Voices Project." Featured panel presenter at America Healing national meeting of grantees of the W.K. Kellogg Foundation, Asheville, NC.	April 2013
"Clinical implications of healthcare reform for academic medical centers." Association of Academic Internal Medicine annual meeting, New Orleans, LA.	October 2013
"Making progress but losing ground: the quicksand of infant mortality in the United States." Snyder Memorial Lecture, Swarthmore College, Swarthmore, PA.	March 2014
"The Million Hearts Initiative: Can the Affordable Care Act	May 2014

deliver?" Million Hearts Initiative Workshop, Okemos, MI.

"What if we asked the public?" Grand Rounds presentation, Royal Children's Hospital, Melbourne, Australia. — August 2014

"Infant mortality as a state health priority and key index of population health in Michigan." Health Policy guest lecturer, Oakland University William Beaumont Medical School, Troy, MI. — October 2014

"Health services research and impact of the field of infant mortality research." Keynote speaker, annual meeting of the Midwest Society of Pediatric Research, Cleveland Clinic, Cleveland, OH. — October 2014

"What if we asked the public? Measuring attitudes, influencing policy." Grand Rounds presentation, Children's Hospital, Boston, MA. — January 2015

"From affecting to effecting health policy: focusing on population health as a physician, researcher, and government official." Grand Rounds presentation, Brigham & Women's Hospital, Boston, MA. — January 2015

"Importance of addressing neonatal abstinence syndrome in Michigan." Keynote address for statewide symposium: NAS—Primary and Secondary Prevention; a Team Approach. Okemos, MI. — May 2015

"In the belly of the policy beast: Data, debate, and the value of the academic voice." PolicyLab Seminar presentation, Children's Hospital of Philadelphia, Philadelphia, PA. — May 2015

"MHA Keystone Pain Management: Why, who, what, how?" Keynote address, Michigan Health and Hospitals Association Keystone Symposium, Dearborn, MI. — May 2015

SELECTED OTHER PRESENTATIONS

"Parental depression as a determinant of undervaccination among preschool-aged children." Plenary presentation, Robert Wood Johnson Clinical Scholars Program annual meeting, Ft. Lauderdale, FL. — November 2000

"The future of childhood vaccine costs in the public sector." Platform presentation, Robert Wood Johnson Clinical Scholars Program annual meeting, Ft. Lauderdale, FL. — November 2001

"Cost-effectiveness analysis of immunization strategies regarding smallpox bioterrorism." Platform presentation, Society of General Internal Medicine annual meeting, Atlanta, GA. — May 2002

"State-level demographic, economic, and political factors associated with children's vaccination rates." Oral presentation, AcademyHealth annual meeting, Washington, D.C. — June 2002

"Factors associated with transitions in children's health insurance." Platform presentation, Pediatric Academic Societies annual meeting, Seattle, WA. — May 2003

"Projected economic impact of childhood vaccine shortages." — May 2003

Platform presentation, Pediatric Academic Societies annual meeting, Seattle, WA.

"Decline in varicella-related hospitalizations and expenditures after introduction of varicella vaccine." Platform presentation, Pediatric Academic Societies annual meeting, San Francisco, CA.	May 2004
"State school and daycare entry laws associated with higher varicella immunization rates." Platform presentation, Pediatric Academic Societies annual meeting, San Francisco, CA.	May 2004
"Healthcare utilization and expenditures associated with adults' transitions in health insurance status." Platform presentation, Society of General Internal Medicine annual meeting, Chicago, IL.	May 2004
"Preferences and tradeoffs for preventive services in health plans." Platform presentation, Society of General Internal Medicine annual meeting, Chicago, IL.	May 2004
"Attitudes of medical subspecialists regarding influenza vaccine." Oral presentation, National Immunization Conference, Nashville, TN.	March 2004
"Benefits coverage for adult vaccines in employer-sponsored health plans." Oral presentation, National Immunization Conference, Nashville, TN.	March 2004
"Assessing the potential effect of programmatic changes in Medicaid and SCHIP on children's uninsured rates." Research panel presentation at the 2005 annual Child Health Services Research Meeting of AcademyHealth, Washington, D.C.	June 2005
"How many successes and how many failures? Vaccine development in the United States, 1995-2008." Oral presentation, National Immunization Conference, Dallas, TX.	March 2009
"How many successes and how many failures? Vaccine development in the United States, 1995-2008." Oral symposium presentation, Pediatric Academic Societies annual meeting, Baltimore, MD.	May 2009
"Implications of national health care reform for the University of Michigan Health System." Presentation to the Regents of the University of Michigan.	May 2010
"Implications of racial/ethnic diversity for health in the United States—2030." Featured speaker, Society 2030 meeting, Institute for Social Research, University of Michigan.	June 2011
"Focusing on passion, difference, and service." Keynote presentation at graduation of the Michigan Health Sciences Summer Institute / Undergraduate Research Academy, University of Michigan.	August 2014

BIBLIOGRAPHY

Peer-Reviewed Publications

1) Davis FB, Blas SD, **Davis MM**, Davis PJ. Analogue-specific action *in vitro* of atrial natriuretic factor on human red blood cell Ca2+-ATPase activity. *Hypertension.* 1988;12:428-433.
2) **Davis MM,** Andreae M, Freed GL. Physicians' early challenges related to the pneumococcal conjugate vaccine. *Ambul Pediatr* 2001;1:302-305.
3) Kemper AR, **Davis MM,** Freed GL. Expected adverse events in a smallpox vaccination campaign for children and young adults. *Eff Clin Pract* 2002;5:84-90.
4) Freed GL, **Davis MM,** Andreae MC, Bass S, Weinblatt H. Reimbursement for Prevnar: A modern-day version of Hercules and the Hydra. *Pediatrics.* 2002;110:399-400.
5) **Davis MM,** McMahon SR, Santoli JM, Schwartz B, Clark SJ. A national survey of physician practices regarding influenza vaccine. *J Gen Intern Med* 2002;17:670-676.
6) Cabana MD, Aiken KD, **Davis MM,** Freed GL, Clark SJ. Combined effect of changes in guideline recommendations and immunization financing policy on nursery immunizations. *Ambul Pediatr* 2002;2:367-374.
7) **Davis MM,** Zimmerman JL, Wheeler JRC, Freed GL. The costs of childhood vaccine purchase in the public sector: past trends, future expectations. *Am J Public Health.* 2002;92:1982-1987.
8) Freed GL, **Davis MM,** Clark SJ. Variation in public and private supply of pneumococcal conjugate vaccine during a shortage. *JAMA.* 2003;289:575-578.
9) Kemper AR, **Davis MM.** Under scrutiny: smallpox vaccine recommendations. *Expert Opin Pharmacother.* 2003;4:1207-1214.
10) **Davis MM,** Ndiaye SM, Freed GL, Kim CS, Clark SJ. Influence of insurance status and vaccine cost on physicians' administration of pneumococcal conjugate vaccine. *Pediatrics.* 2003;112:521-526.
11) **Davis MM,** Ndiaye SM, Freed GL, Clark SJ. One-year uptake of pneumococcal conjugate vaccine: a national survey of family physicians and pediatricians. *J Am Board Fam Pract.* 2003;16:363-371.
12) Cabana MD, Rand C, Slish K, Nan B, **Davis MM,** Clark N. Pediatrician self-efficacy for counseling parents of asthmatic children to quit smoking. *Pediatrics.* 2004;113:78-81.
13) **Davis MM,** Wortley PM, Ndiaye SM, Woods MG, Clark SJ. Availability of influenza vaccine among medical subspecialty practices: a national survey. *Am J Prev Med.* 2004;26:307-310.
14) Pollack HA, Dombkowski KJ, Zimmerman JB, **Davis MM,** Cowan AE, Wheeler JRC, Hillemeier AC, Freed GL. Emergency department use among Michigan children with special health care needs: an introductory study. *Health Serv Res.* 2004;39:665-692.
15) Aiken KD, Freed GL, **Davis MM.** When insurance status isn't static: insurance transitions for low-income children and implications for health and health care. *Ambul Pediatr* 2004;4:237-243.
16) Flynn HA, **Davis MM,** Marcus SM, Cunningham R, Blow FC. Rates of maternal depression in pediatric emergency department and relationship to child service utilization. *Gen Hosp Psychiatry.* 2004;26:316-322.
17) **Davis MM,** Upston AM. State legislator gender and other characteristics associated with sponsorship of child health bills. *Ambul Pediatr* 2004;4:295-302.
18) Jee SH, **Davis MM.** Factors associated with variations in parental social support in primary care pediatric settings. *Ambul Pediatr* 2004;4:316-322.
19) **Davis MM,** Patel MS, Gebremariam A. Decline in varicella-related hospitalizations and expenditures for children and adults after introduction of varicella vaccine in the United States. *Pediatrics.* 2004;114:786-792.
20) Odetola O, Clark SJ, Freed GL, Bratton SL, **Davis MM.** A national survey of the distribution of pediatric critical care resources in the United States. *Pediatrics.* 2005;115:382-386.
21) Kemper AR, Cowan AE, Ching PL, **Davis MM,** Kennedy E, Clark SJ, Freed GL. Hospital decision-making regarding the smallpox pre-event vaccination program. *Biosecur Bioterr.* 2005;3:23-30.

22) **Davis MM,** Gaglia M. Association of daycare and school entry vaccination requirements with varicella immunization rates. *Vaccine.* 2005;23:3053-3060.
23) **Davis MM,** Fant KE. Coverage of vaccines in private health plans: what does the public prefer? *Health Aff.* 2005;24:770-779.
24) **Davis MM,** Halasyamani LK, Sneller V-P, Bishop KR, Clark SJ. Provider response to different formats of the adult immunization schedule. *Am J Prev Med.* 2005;29:34-40.
25) Odetola O, Miller W, **Davis M,** Bratton S. The relationship between the location of pediatric intensive care unit facilities and child death from trauma: a county-level ecologic study. *J Pediatr.* 2005;147:74-77.
26) Yoon EY, **Davis MM,** Van Cleave J, Maheshwari S, Cabana MD. Factors associated with non-attendance at pediatric subspecialty asthma clinics. *J Asthma.* 2005;42:555-559.
27) Gopal S, **Davis MM.** Improving delivery of influenza vaccine to nonelderly persons with cardiovascular disease, with and without sufficient national supply of vaccine: a decision analysis. *Hum Vaccin.* 2005;1:217-223.
28) Odetola FO, Clark SJ, **Davis MM**. Growth, development and failure to thrive: Factors that underlie the availability of pediatric critical care facilities in the United States. *Pediatr Crit Care Med.* 2006; 7:70-73.
29) **Davis MM,** Slish K, Chao C, Cabana MD. National trends in bariatric surgery, 1996-2002. *Arch Surg.* 2006;141:71-74.
30) Yoon EY, **Davis MM,** El-Essawi H, Cabana MD. FDA labeling status of pediatric medications. *Clin Pediatr (Phila)).* 2006;45:75-78.
31) Lee JM, **Davis MM,** Clark SJ, Hofer TJ, Kemper AR. Estimated cost-effectiveness of growth hormone therapy for idiopathic short stature. *Arch Pediatr Adolesc Med.* 2006; 160:263-269.
32) Patel MS, **Davis MM.** Could a federal program promoting influenza vaccination among elders be cost-effective? *Prev Med.* 2006;42:240-246.
33) Gaglia MA, **Davis MM.** States' emergency orders regarding the 2004-05 influenza vaccine shortage. *Hum Vaccin.* 2006;2:34-37.
34) **Davis MM.** Successes and remaining challenges after 10 years of varicella vaccination in the United States. *Expert Rev Vaccines.* 2006;5:295-302.
35) Cowan AE, Winston CA, **Davis MM,** Wortley PM, Clark SJ. Influenza vaccination status and influenza-related attitudes and practices among US physicians. *Am J Infect Control.* 2006;34:164-169.
36) Jee SH, Barth RP, Szilagyi MA, Szilagyi PG, Aida M, **Davis MM.** Factors associated with chronic conditions among children in foster care. *J Health Care Poor Underserved.* 2006;17:328-341.
37) Kemper AR, Dombkowski KJ, Menon RK, **Davis MM.** Trends in diabetes mellitus among privately insured children, 1998-2002. *Ambul Pediatr.* 2006;6:178-181.
38) Odetola F, Tilford JM, **Davis MM.** Variation in the use of intracranial pressure monitoring and mortality in critically ill children with meningitis in the United States. *Pediatrics.* 2006;117:1893-1900.
39) Flynn HA, Cain SA, O'Mahen HA, **Davis MM.** Detection of maternal alcohol use problems in the pediatric emergency department. *Alcohol Clin Exp Res.* 2006;30:1160-1164.
40) Mmeje O, **Davis MM.** Will coverage for child and adolescent immunizations be mandated in insurance plans in 2006? Lessons learned from the Newborns and Mothers Health Protection Act of 1996. *Pediatrics.* 2006;118:388-392.
41) **Davis MM,** Broder KR, Cowan AE, Mijalski C, Kretsinger K, Stokley S, Clark SJ. Physician attitudes and preferences regarding new combined tetanus-diphtheria-acellular pertussis vaccines for adolescents in the United States. *Amer J Prev Med.* 2006;31:176-180.
42) Patel UD, **Davis MM.** Physicians' attitudes and practices regarding adherence to medical regimens

by patients with chronic illness. *Clin Pediatr (Phila).* 2006;45:439-45.

43) Patel UD, **Davis MM.** Falling into the doughnut hole: drug spending among beneficiaries with end-stage renal disease under Medicare Part D plans. *Am J Nephrol.* 2006; 17: 2546-2553.
44) Gurney JG, McPheeters ML, **Davis MM.** Health conditions and health care utilization among children with and without autism: National Survey of Children's Health. *Arch Pediatr Adolesc Med.* 2006;160:825-830.
45) Dombkowski KJ, **Davis MM,** Cohn L, Clark SJ. Potential for improving influenza vaccination rates among children with asthma. *Arch Pediatr Adolesc Med.* 2006;160:966-971.
46) **Davis MM,** Taubert K, Benin AL, Brown DW, Mensah GA, Baddour LM, Dunbar S, Krumholz HM. Influenza vaccination as secondary prevention for cardiovascular disease. *Circulation.* 2006;114:1549-1553.
47) Van Cleave J, **Davis MM.** Bullying behaviors and children with special health care needs in a national sample. *Pediatrics.* 2006;118:1212-1219.
48) Okumura M, Campbell A, Nasr S, **Davis MM.** Inpatient health care utilization among adult survivors of chronic childhood illnesses in the United States. *Arch Pediatr Adolesc Med.* 2006;160:1054-1060.
49) Lee JM, Okumura M, **Davis MM,** Herman WH, Gurney JG. Prevalence and determinants of insulin resistance among U.S. adolescents: a population based study. *Diabetes Care.* 2006;29:2427–2432.
50) Clark SJ, Adolphe S, **Davis MM,** Cowan AE, Kretsinger K. Attitudes of U.S. obstetricians toward a combined tetanus-diphtheria-acellular pertussis vaccine for adults. *Infect Dis Obstet Gynecol.* 2006;2006:1-5.
51) Odetola FO, Shanley TP, Gurney JG, Clark SJ, Dechert RE, Freed GL, **Davis MM.** Characteristics and outcomes of inter-hospital transfers from Level II to Level I pediatric intensive care units. *Pediatr Crit Care Med.* 2006;7:536-540.
52) Clark SJ, Cowan AE, Stokley S, Bilukha O, **Davis MM.** Physician perspectives to inform a new meningococcal conjugate vaccine (MCV4) recommendation. *J Adolesc Health.* 2006;39:850-855.
53) Dempsey AF, **Davis MM.** Overcoming barriers to adherence to HPV vaccination recommendations. *Am J Manag Care.* 2006;12:S484-S491.
54) Laroche HH, Hofer TP, **Davis MM.** Adult fat intake associated with the presence of children in households: findings from NHANES III. *J Am Board Fam Med.* 2007;20:9-15.
55) **Davis MM,** Patel MS, Halasyamani L. Variation in estimated Medicare prescription drug plan costs and affordability for beneficiaries living in different states. *J Gen Intern Med.* 2007;22:257-263.
56) **Davis MM,** Marin M, Cowan AE, Guris D, Clark SJ. Physician attitudes regarding breakthrough varicella disease and a potential second dose of varicella vaccine. *Pediatrics.* 2007;119:258-264.
57) Lee JM, **Davis MM,** Clark SJ, Kemper AR. Threshold of evaluation for short stature in a pediatric specialty clinic: differences between boys versus girls? *J Pediatr Endocrinol Metab.* 2007; 20:21-26.
58) Woolford SJ, Clark SJ, Lumeng JC, Williams DR, **Davis MM.** Maternal perspectives on growth and nutrition counseling provided at preschool well-child visits. *J Natl Med Assoc.* 2007;99:153-158.
59) **Davis MM,** Halasyamani LK. Conflicting measures of hospital quality: ratings from 'Hospital Compare' versus 'Best Hospitals.' *J Hosp Med.* 2007;2:128-134.
60) **Davis MM,** Kretsinger K, Cowan AE, Stokely S, Clark SJ. New combined tetanus-diphtheria-acellular pertussis vaccines for adults: primary care physician attitudes and preferences. *Hum Vaccin.* 2007; published online, available at: http://www.landesbioscience.com/journals/vaccines/abstract.php?id=4307.
61) Yoon EY, Dombkowski KJ, Rocchini A, Lin JJ, **Davis MM.** Off-label utilization of antihypertensive medications in children. *Ambul Pediatr.* 2007;7:299-303.
62) Woolford S, Clark SJ, Gebremariam A, **Davis MM.** Inpatient hospital charges associated with obesity as a secondary diagnosis in children. *Obesity.* 2007;15:1895-1901.
63) Okumura MJ, McPheeters M, **Davis MM**. State and national estimates of insurance coverage and

health care utilization for adolescents with chronic conditions from the National Survey of Children's Health Survey, 2003. *J Adolesc Health.* 2007;41:343-349.

64) Lee JM, Okumura MJ, Freed GL, Menon RK, **Davis MM.** Trends in hospitalizations for diabetes among children and young adults – United States, 1993-2004. *Diabetes Care.* 2007;30:3035-3039.
65) **Davis MM,** Gance-Cleveland B, Hassink S, Johnson R, Paradis G, Resnicow K. Recommendations for prevention of childhood obesity. *Pediatrics.* 2007;120:S229-S253.
66) Van Cleave J, Heisler M, DeVries JM, Joiner TA, **Davis MM.** Discussion of illness during well-child visits with parents of children with and without special health care needs. *Arch Pediatr Adolesc Med.* 2007;161:1170-1175.
67) Laroche HH, **Davis MM,** Forman J, Palmisano G, Heisler M. What about the children? The experience of families involved in an adult-focused diabetes intervention. *Public Health Nutr.* 2007; published online, available at: http://journals.cambridge.org/download.php?file=%2FPHN%2FS1368980007000791a.pdf&code=1df0b200917a34dd1e3a1a9fe14560df.
68) Odetola FO, Rosenberg AL, **Davis MM,** Clark SJ, Dechert RE, Shanley TP. Do outcomes vary according to the source of admission to the pediatric intensive care unit? *Pediatr Crit Care Med.* 2008;9:20-25.
69) Schilling PL, **Davis MM,** Albanese CT, Dutta S, Morton J. National trends in adolescent bariatric surgical procedures and implications for surgical centers of excellence. *Bull Am Coll Surg.* 2008;206:1-12.
70) Lee JM, **Davis MM,** Menon RK, Freed GL. The geographic distribution of childhood diabetes and obesity to the supply of pediatric endocrinologists in the US. *J Pediatr.* 2008;152;331-336.
71) Woolford SJ, **Davis MM,** Gebremariam A, Strecher V. Physicians' perspectives on increasing the use of BMI charts for young children. *Clin Pediatr (Phila).* 2008;47:573-577.
72) **Davis MM,** Wortley PM, Ndiaye SM, Cowan AE, Osta AD, Clark SJ. Vaccinating high-risk non-elderly adults against influenza: a national survey of subspecialists. *Human Vaccines.* 2008;4:229-233.
73) Zivin K, McCammon RJ, **Davis MM,** Halasyamani LK, Kales HC. Increases in Medicare prescription drug plan costs attributable to psychotropic medications. *Am J Geriatr Psychiatry.* 2008;16:674-685.
74) Dempsey AF, Cowan AE, Stokley S, Messonnier M, Clark SJ, **Davis MM.** The role of economic information in decision-making by the Advisory Committee on Immunization Practices. *Vaccine.* 2008;26:5389-5392.
75) Laroche HH, Heisler M, Forman J, Anderson M, **Davis MM.** When adults with diabetes attempt to drink less soda: resulting adult-child interactions and household changes. *J Natl Med Assoc.* 2008;100:1004-1011.
76) Caskey RN, **Davis MM**. Differences in end-of-life hospital care for children associated with age, transfer status, and insurance coverage for children. *J Hosp Med* 2008;3(5):376-83.
77) Tarini BA, Singer DC, Clark SJ, **Davis MM.** Parental concerns about genetic disease risk: the effects of family history and genetic test results. *Arch Pediatr Adolesc Med.* 2008;162:1079-1083.
78) Harari N, **Davis MM,** Heisler M. Strangers in a strange land: health care experiences for recent Latino immigrants in Midwest communities. *J Health Care Poor Underserved.* 2008;19:1350-1367.
79) **Davis MM,** McGonagle K, Schoeni RF, Stafford F. Relative associations of parental and grandparental obesity with risk of childhood overweight: implications for primary care practice. *J Am Board Fam Med.* 2008;21:549-554.
80) Patel MS, Gebremariam A, **Davis MM**. Herpes zoster-related hospitalizations and expenditures before and after introduction of varicella vaccine in the United States. *Infect Control Hosp Epidemiol* 2008;29:1157-1163.

81) Danziger S, **Davis MM**, Orzol S, Pollack HA. Health insurance and access to care among welfare leavers. *Inquiry.* 2008;45:184-197.
82) Van Cleave J, **Davis MM**. Preventive care utilization among children with and without special health care needs: associations with unmet need. *Ambul Pediatr.* 2008;8:305-311.
83) Okumura MJ, Heisler M, **Davis MM**, Cabana MD, Demonner S, Kerr EA. Comfort of general internists and general pediatricians in providing care for young adults with chronic illnesses of childhood. *J Gen Intern Med.* 2008;23:1621-1627.
84) Hoilette LK, Clark SJ, Gebremariam A, **Davis MM.** Usual source of care and unmet need among vulnerable children: 1998-2006. *Pediatrics.* 2009;123:e214-e219.
85) Yoon EY, **Davis MM**, Rocchini A, Kershaw D, Freed GL. Medical management of children with primary hypertension by pediatric subspecialists. *Pediatr Nephrol.* 2009;24:147-153.
86) Macy ML, Stanley RM, Lozon MM, Sasson C, Gebremariam A, **Davis MM.** Trends in high-turnover stays among children hospitalized in the United States – 1993-2003. *Pediatrics.* 2009;123:996-1002.
87) Woolford SJ, Gebremariam A, Clark SJ, **Davis MM.** Persistent gap of incremental charges for obesity as a secondary diagnosis in common pediatric hospitalizations. *J Hosp Med.* 2009;4:149-156.
88) Odetola F, **Davis MM,** Cohn L, Clark SJ. Interhospital transfer of critically ill and injured children: an evaluation of transfer patterns, resource utilization, and clinical outcomes. *J Hosp Med.* 2009;4:164-170.
89) Hassan F, Lewis TC, **Davis MM,** Gebremariam A, Dombkowski KJ. Hospital utilization and charges among children with influenza, 2003. *Amer J Prev Med.* 2009;36:292-296.
90) Dempsey AF, Espinosa C, **Davis MM.** Unintended vaccination of pregnant adolescents: Estimating the scope of the problem and the impact of different pregnancy testing strategies. *Vaccine.* 2009;27:3536-3543.
91) Yoon EY, **Davis MM,** Freed GL, Clark SJ. Formulary coverage for lipid-lowering drugs recommended for children. *Clinical Pediatrics.* 2009;48:609-613.
92) Lee JM, Gebremariam A, Card-Higginson P, Shaw JL, Thompson JW, **Davis MM.** Poor performance of body mass index as a marker for hypercholesterolemia in children and adolescents. *Arch Pediatr Adolesc Med.* 2009;163:716-723.
93) Tarini BA, Singer DC, Butchart AT, Clark SJ, **Davis MM.** Parents' interest in predictive genetic testing for their children when a disease has no effective treatment. *Pediatrics.* 2009;124:e432-e438.
94) Patel MS, Lypson ML, **Davis MM.** Medical student perceptions of education in health care systems. *Acad Med.* 2009;84:1301-1306.
95) Dempsey AF, Singer DC, Clark SJ, **Davis MM.** Parents' views on three shot-related visits: Implications for use of adolescent vaccines like human papillomavirus vaccine. *Acad Pediatrics.* 2009;9:348-352.
96) Yoon EY, **Davis MM,** Kershaw, D, Clark SJ. Formulary coverage for antihypertensive drugs used in children. *Am J Pharm Benefits.* 2009;1:145-149.
97) Dempsey AF, Singer DC, Clark SJ, **Davis MM.** Adolescent preventive healthcare: what do parents want? *J Pediatr.* 2009;155:689-694.
98) Laroche HH, **Davis MM,** Forman J, Palmisano G, Reisinger HS, Tannas C, Spencer M, Heisler M. Children's roles in parents' diabetes self-management. *Amer Jour Prev Med.* 2009;37(6S1):S251-S261.
99) Davis RN, Caldwell C, Clark SJ, **Davis MM.** Depressive symptoms in non-resident African American fathers and involvement with their sons. *Pediatrics.* 2009;124:1611-1618.
100) Lee JM, Pilli S, Gebremariam A, Keirns CC, **Davis MM**, Vijan S, Freed GL, Herman WH, Gurney JG. Getting heavier, younger: trajectories of obesity over the life course. *Int J Obes (Lond).* 2009

Dec 1. [Epub ahead of print]

101) Woolford SJ, Clark SJ, Ahmed AR, **Davis MM.** Feasibility and acceptability of a one-page tool to help physicians assess and discuss obesity with parents of preschoolers. *Clin Pediatr.* 2009;48:954-959.

102) Lee JM, **Davis MM,** Woolford SJ, Gurney JG. Waist circumference percentile thresholds for identifying adolescents with insulin resistance in clinical practice. *Pediatric Diabetes.* 2009;10:336-342.

103) Hollingsworth JM, **Davis MM,** West BT, Wolf JS Jr, Hollenbeck BK. Trends in medical expulsive therapy use for urinary stone disease in U.S. emergency departments. *Urology.* 2009;74:1206-1210.

104) **Davis MM,** Butchart AT, Coleman MS, Singer DC, Wheeler JRC, Pok A, Freed GL. The expanding vaccine development pipeline, 1995-2008. *Vaccine.* 2010;28:1353-1356.

105) Lancaster CA, Gold KJ, Flynn HA, Yoo H, Marcus SM, **Davis MM.** Risk factors for depressive symptoms during pregnancy: a systematic review. *Amer Jour Obstet Gyn.* 2010;5-14.

106) Schilling P, Campbell D, Englesbe M, **Davis MM.** A comparison of in-hospital mortality risk conferred by high hospital occupancy, differences in nurse staffing levels, weekend admission, and seasonal influenza. *Medical Care.* 2010;48:224-232.

107) Freed GL, Clark SJ, Butchart AT, Singer DC, **Davis MM.** Parental vaccine safety concerns in 2009. *Pediatrics.* 2010;125:654-659.

108) Macy ML, Kim CS, Sasson C, Lozon MM, **Davis MM.** Pediatric observation units in the United States: a systematic review. *Jour Hosp Med.* 2010;5:172-182.

109) Okumura MJ, Kerr EA, Cabana MD, **Davis MM,** Demonner S, Heisler M. Physician views on barriers to primary care for young adults with childhood-onset chronic disease. *Pediatrics.* 2010;125:e748-e754.

110) Freed GL, Dunham KM, Clark SJ, **Davis MM**, on behalf of the Research Advisory Committee of the American Board of Pediatrics. Perspectives and preferences regarding physician selection and board certification among the general public. *J Pediatr.* 2010;156;841-845.

111) Tarini BA, Goldenberg A, Singer D, Clark SJ, Butchart A, **Davis MM.** Not without my permission: parents' willingness to permit use of newborn screening samples for research. *Public Health Genomics.* 2010;13:125-130.

112) Lancaster CA, Flynn HA, Johnson TRB, Marcus SM, **Davis MM.** Peripartum length of stay for women with depressive symptoms during pregnancy. *Jour Women's Health.* 2010;19:31-37.

113) Woolford SJ, Clark SJ, Gebremariam A, **Davis MM,** Freed GL. To cut or not to cut: physicians' perspectives on referring adolescents for bariatric surgery. *Obes Surg.* 2010;20:937-942.

114) Sussman J, Halasyamani LK, **Davis MM.** Hospitals during recession and recovery: vulnerable institutions and quality at risk. *Jour Hosp Med.* 2010;5:302-305.

115) Odetola FO, Gebremariam A, **Davis MM.** Comorbid illnesses among critically ill hospitalized children: impact on hospital resource use and mortality, 1997-2006. *Pediatr Crit Care Med.* 2010; 11:457-463.

116) Woolford SJ, Clark SJ, Gebremariam A, **Davis MM,** Freed GL. Physicians' perspectives on referring obese adolescents to pediatric multidisciplinary weight management programs. *Clin Pediatr.* 2010;49:871-875.

117) Macy ML, Stanley RM, Sasson C, Gebremariam A, **Davis MM.** High turnover stays for pediatric asthma in the United States: analysis of the 2006 Kids' Inpatient Database. *Med Care.* 2010;48:827-833.

118) Lee JM, Gebremariam A, **Davis MM,** Kim C. Trends in hospitalizations for diabetes over the life course. *Jour Women's Health.* 2010;19:2033-2042.

119) Patel MS, **Davis MM,** Lypson ML. Advancing medical education by teaching health policy. *N Engl Jour Med.* 2011;364:695-697.

120) Eisenberg D, Freed GL, **Davis MM,** Singer D, Prosser LA. Valuing health at different ages: evidence from a nationally representative survey in the US. *Applied Health Economics & Health Policy.* 2011;9:149-156.
121) Yoon EY, Clark SJ, Singer DC, Butchart AT, **Davis MM**. Parental preferences for FDA-approved medications prescribed for their children. *Clin Pediatr.* 2011;50:208-214.
122) Davis N, **Davis MM,** Freed GL, Clark SJ. Fathers' depression related to positive and negative parenting behaviors with one-year-old children. *Pediatrics.* 2011;127:612-618.
123) Freed GL, Clark SJ, Butchart AT, Singer DC, **Davis MM.** Sources and perceived credibility of vaccine safety information for parents. *Pediatrics.* 2011;127(suppl):S107-S112.
124) Palladino CL, Flynn HA, Richardson C, Marcus SM, Johnson TRB, **Davis MM**. Lengthened pre-delivery stay and antepartum complications in women with depressive symptoms during pregnancy. *Jour Women's Health.* 2011;20:953-962.
125) Benneyworth BD, Shanley TS, Odetola F, **Davis MM.** Inpatient health care utilization for children dependent on long-term mechanical ventilation – United States, 2000-2006. *Pediatrics.* 2011;127:e1533 -e1541.
126) Macy ML, **Davis MM,** Clark SJ, Stanley R. Parental health literacy and asthma education delivery during a visit to a community-based pediatric emergency department: a pilot study. *Pediatr Emerg Care.* 2011;27:469-474.
127) Palladino CL, Fedock GL, Forman JH, **Davis MM,** Henshaw E, Flynn HA. OB CARES – The obstetric clinic and resources study: providers' perceptions of addressing perinatal depression—a qualitative study. *Gen Hosp Psych.* 2011;33:267-278.
128) Zickafoose JS, Gebremariam A, Clark SJ, **Davis MM.** Medical home disparities between children with public and private insurance. *Academic Peds.* 2011;11:305-310.
129) **Davis MM,** Walter JK. Equality in quality in the era of the Affordable Care Act. *JAMA.* 2011:306:872-873.
130) Hassan F, **Davis MM,** Chervin RD. No independent association between insufficient sleep and childhood obesity in the National Survey of Children's Health. *J Clin Sleep Med.* 2011;7:153-157.
131) Dempsey AF, Schaffer S, Singer D, Butchart A, **Davis MM,** Freed GL. Alternative vaccination schedule preferences among parents of young children. *Pediatrics.* 2011;128:848-856.
132) **Davis MM,** Butchart AT, Wheeler JRC, Coleman MS, Singer DC, Freed GL. Failure-to-success ratios, transition probabilities and phase lengths for prophylactic vaccines versus other pharmaceuticals in the development pipeline. *Vaccine.* 2011;29:9414-9416.
133) Dayoub EJ, **Davis MM.** Relationship of therapeutic cancer vaccine development to population disease burden and five-year survival. *Human Vaccines.* 2011;7:1124-1129.
134) Odetola FO, Clark SJ, Lamarand KE, **Davis MM,** Garton HJ. Intracranial pressure monitoring in childhood meningitis with coma: a national survey of neurosurgeons in the United States. *Pediatr Crit Care Med.* 2011;12:e350-356.
135) Espinosa CM, **Davis MM,** Gilsdorf JR. Anaerobic osteomyelitis in children. *Pediatr Infect Dis J.* 2011;30:422-423.
136) Zickafoose JS, Benneyworth B, Riebschleger MP, Espinosa CE, **Davis MM.** Hospitalizations for intussusception before and after re-introduction of rotavirus vaccine in the United States. *Arch Pediatr Adolesc Med.* 2012;166:350-355.
137) Myrvik MP, Campbell AD, **Davis MM,** Butcher JL. Impact of psychiatric diagnoses on hospital length of stay in children with sickle cell anemia. *Pediatr Blood Cancer.* 2012;58:239-243.
138) Sun GH, **Davis MM**. The Patient Protection and Affordable Care Act of 2010: impact on otolaryngology practice and research. *Otolaryngol Head Neck Surg.* 2012 Jan 26. [Epub ahead of print]
139) Abir M, Choi H, Cooke CR, Wang SC, **Davis MM.** Effect of a mass casualty incident: clinical

outcomes and hospital charges for casualty patients versus concurrent inpatients. *Acad Emerg Med.* 2012;19:280-286.

140) Zickafoose JS, Gebremariam A, **Davis MM.** Medical home disparities for children by insurance type and state of residence. *Matern Child Health Jour.* 2012;16 Suppl 1:S178-S187.

141) Patrick SW, Schumacher RE, Benneyworth BD, Krans EE, McAllister JM, **Davis MM.** Neonatal abstinence syndrome and associated health care expenditures. *JAMA.* 2012;307:1934-1940.

142) Danziger P, **Davis MM.** Mandatory influenza vaccination programs for health care personnel in NACHRI-associated children's hospitals vs. non-children's hospitals. *Human Vaccines Immunotherapeutics.* 2012;8:731-735.

143) Singer DC, **Davis MM,** Gebremariam A, Clark SJ. Underinsurance for recently recommended vaccines in private health plans. *Jour Community Health.* 2012;37:1164-1167.

144) Macy ML, Clark SJ, Freed GL, Butchart AT, Singer DC, Sasson C, Meurer WJ, **Davis MM.** Carpooling and booster seats: a national survey of parents. *Pediatrics.* 2012;129:290-298.

145) Weinberg SH, Butchart AT, **Davis MM.** Size of clinical trials and introductory prices of prophylactic vaccine series. *Human Vaccines Immunotherapeutics.* 2012;8:1066-1070.

146) Patrick SW, Choi H, **Davis MM.** Increase in federal match associated with significant gains in coverage for children through Medicaid and SCHIP. *Health Affairs.* 2012;31:1796-1802.

147) Gowda C, Carlos RC, Butchart AT, Singer DC, **Davis MM,** Clark SJ, Dempsey AF. CHIAS: a standardized measure of parental HPV immunization attitudes and beliefs and its associations with vaccine uptake. *Sexual Transmit Dis.* 2012:39:475-481.

148) Sears ED, **Davis MM,** Chung KC. Relationship between timing of emergency procedures and limb amputation in patients with open tibia fracture in the United States, 2003 to 2009. *Plast Reconst Surg.* 2012;130:369-378.

149) Patrick SW, Schumacher RE, **Davis MM.** Variation in lumbar punctures for early onset neonatal sepsis: a nationally representative serial cross-sectional analysis, 2003-2009. *BMC Pediatrics.* 2012:12:134. DOI: 10.1186/1471-2431-12-134.

150) Patel MS, **Davis MM,** Lypson ML. The VALUE framework: training residents to provide value-based care for their patients. *Jour Gen Intern Med.* 2012;27:1210-1214.

151) Sears ED, Burke JF, **Davis MM,** Chung K. The influence of procedure delay on resource utilization: a national study of patients with open tibial fracture. *Plast Reconst Surg.* 2013;131:553-563.

152) **Davis MM,** Clark SJ, Butchart AT, Singer DC, Shanley TP, Gipson DS. Public participation in, and awareness about, medical research opportunities in the era of clinical and translational research. *Clin Transl Sci.* 2013;6:88-93.

153) Jensen KM, **Davis MM.** Health care in adults with Down syndrome: a longitudinal cohort study. *Jour Intell Disability Res.* 2013;57:947-958.

154) Woolford SJ, Clark SJ, Butchart A, Geiger JD, **Davis MM,** Fagerlin A. To pay or not to pay: public perception regarding insurance coverage of obesity treatment. *Obesity.* 2013;21:E709-E714.

155) Jensen KM, **Davis MM,** Cooke CM. Fidelity of administrative data when researching Down syndrome. *Medical Care.* 2013 Jan 25. [epub ahead of print]

156) Auger K, Kahn R, **Davis MM,** Beck A, Simmons J. Medical home quality and readmission risk for children hospitalized with asthma exacerbations. *Pediatrics.* 2013;131:64-70.

157) Sun GH, Auger KA, Aliu O, Patrick SW, Demonner S, **Davis MM.** Posttonsillectomy hemorrhage in children with von Willebrand disease or hemophilia. *JAMA Otolaryngol Head Neck Surg.* 2013;139:245-249.

158) Abir M, **Davis MM,** Sankar P, Wong AC, Wang SC. Design of a model to predict surge capacity bottlenecks for burn mass casualties at a large academic medical center. *Prehosp Disaster Med.* 2013;28:23-32.

159) Jensen KM, Taylor LC, **Davis MM.** Primary care for adults with Down syndrome: adherence to

preventive healthcare recommendations. *Jour Intell Disability Res.* 2013;57:409-421.

160) Pynnonen M, **Davis MM.** Extent of sinus surgery, 2000 to 2009: a population-based study. *Laryngoscope.* 2013;[epub ahead of print].

161) Krans EE, **Davis MM,** Palladino CL. Disparate patterns of prenatal care utilization stratified by medical and psychosocial risk. *Matern Child Health J.* 2013;17:639-645.

162) Aliu O, **Davis MM,** Demonner S, Chung KC. The influence of evidence in the surgical treatment of thumb basilar joint arthritis. *Plast Reconstr Surg.* 2013;131:816-828.

163) Goldenberg AJ, Dodson DS, **Davis MM,** Tarini BA. Parents' interest in whole-genome sequencing of newborns. *Genet Med.* 2013;[epub ahead of print].

164) Patrick SW, Schumacher RE, **Davis MM.** Methods of mortality risk adjustment in the NICU: a 20-year review. *Pediatrics.* 2013;131:S68-S74.

165) DeCamp LR, Kieffer E, Zickafoose JS, DeMonner S, Valbuena F, **Davis MM,** Heisler M. The voices of limited English proficiency mothers on pediatric primary care: lessons for the medical home. *Matern Child Health Jour.* 2013;17:95-109.

166) Patrick SW, **Davis MM,** Sedman AB, Meddings JA, Hieber S, Lee GM, Stillwell TL, Chenoweth CE, Espinosa CM, Schumacher RE. Accuracy of hospital administrative data in reporting central line-associated bloodstream infections in newborns. *Pediatrics.* 2013;131:S75-S80.

167) Sun GH, Auger KA, Aliu O, Patrick SW, Demonner S, **Davis MM.** Variation in inpatient tonsillectomy costs within and between US hospitals attributable to postoperative complications. *Med Care.* 2013;51:1048-1054.

168) Zickafoose JS, **Davis MM.** Medical home disparities are not created equal: differences in the medical home for children from different vulnerable groups. *J Health Care Poor Underserved.* 2013;24:1331-1343.

169) Walter JK, Benneyworth BD, Housey M, **Davis MM.** The factors associated with high-quality communication for critically ill children. *Pediatrics.* 2013;131:S90-S95.

170) Krans EE, **Davis MM,** Schwarz EB. Psychosocial risk, prenatal counseling and maternal behavior: findings from PRAMS, 2004-2008. *Am J Obstet Gynecol.* 2013;208:141.e1-e7.

171) Gaies MG, Jacobs JP, Cotts TB, **Davis MM.** The Patient Protection and Affordable Care Act: impact on care to patients with paediatric and congenital cardiac disease. *Cardiol Young.* 2013;10:1-4.

172) Walter JK, Burke JF, **Davis MM.** Research participation by low-income and race/ethnic minority groups: how payment may change the balance. *Clin Trans Sci.* 2013;6:363-371.

173) Sun GH, Demonner S, **Davis MM.** Epidemiological and economic trends in inpatient and outpatient thyroidectomy in the United States, 1996-2006. *Thyroid.* 2013;23:727-733.

174) Chang T, Choi H, Richardson CR, **Davis MM.** Implications of teen birth for overweight and obesity in adulthood. *Am J Obstet Gynecol.* 2013;110:e1-e7.

175) Heisler M, Halasyamani L, Cowen ME, **Davis MM,** Resnicow K, Strawderman RL, Choi H, Mase R, Piette JD. Randomized controlled effectiveness trial of reciprocal peer support in heart failure. *Circ: Heart Failure.* 2013:6:246-253.

176) Chang T, **Davis MM.** Potential adult Medicaid beneficiaries under the Patient Protection and Affordable Care Act compared with current adult Medicaid beneficiaries. *Ann Fam Med.* 2013;11:406-411.

177) Haggins A, Patrick S, Demonner S, **Davis MM.** When coverage expands: children's health insurance program as a natural experiment in use of health care services. *Acad Emerg Med.* 2013;20:1026-1032.

178) Auger KA, Patrick SW, **Davis MM.** Infant hospitalizations for pertussis before and after Tdap recommendations for adolescents. *Pediatrics.* 2013;132:5:e1149-e1155.

179) Cobb EM, Singer DC, **Davis MM.** Public interest in medical research participation: differences by volunteer status and study type. *Clin Trans Sci.* 2014;7:145-149.

180) Goldenberg AJ, Dodson DS, **Davis MM,** Tarini BA. Parents' interest in whole-genome sequencing of newborns. *Genet Medicine.* 2014:16:78-84.
181) Hanauer DA, Zheng K, Singer DC, Gebremariam A, **Davis MM.** Public awareness, perception, and use of online physician rating sites. *JAMA.* 2014;311:734-735.
182) Mueller EL, Park ER, **Davis MM.** What the Affordable Care Act means for survivors of pediatric cancer. *Jour Clin Oncol.* 2014;32:615-617.
183) Moniz MH, Chang T, **Davis MM.** Attitudes about mandated coverage of birth control medication and other health benefits in a US national sample. *JAMA.* 2014;311:2539-2541.
184) Hashikawa AN, Brousseau DC, Singer DC, Gebremariam A, **Davis MM.** Emergency department and urgent care for children excluded from child care. Pediatrics. 2014; 134(1):e120-7.
185) Auger KA, Kenyon CC, Feudtner C, **Davis MM.** Pediatric hospital discharge interventions to reduce subsequent utilization: a systematic review. *J Hosp Med.* 2014;9:251-260.
186) Sekhar DL, Clark SJ, **Davis MM,** Singer DC, Paul IM. Parental perspectives on adolescent hearing loss risk and prevention. *JAMA Otolaryngol Head Neck Surg.* 2014;140:22-28.
187) Krans EE, **Davis MM.** Strong Start for mothers and newborns: implications for prenatal care delivery. *Curr Opin Obstet Gynecol.* 2014; 511-515.
188) Kircher SM, Johansen ME, Nimeiri HS, Richardson CR, **Davis MM.** Impact of Medicare Part D on out-of-pocket drug costs and medical use for patients with cancer. *Cancer.* 2014;120:3378-3384.
189) Auger KA, Kahn RS, **Davis MM,** Simmons JM. Pediatric asthma readmission: asthma knowledge is not enough? *J Pediatr.* 2014;166:101-108.
190) Clark SA, Shoulders EN, **Davis MM.** Infant pertussis prevention information on Web sites of Michigan birthing hospitals. *Am Jour Inf Cntrl.* 2014;42:1241-1243.
191) Sandberg KC, **Davis MM,** Gebremariam A, Adler J. Increasing hospitalizations in inflammatory bowel disease among children in the United States, 1988-2011. *Inflamm Bowel Dis.* 2014;20:1754-1760.
192) Hanauer DA, Zheng K, Singer DC, Gebremariam A, **Davis MM.** Parental awareness and use of online physician rating sites. *Pediatrics.* 2014;134:e966-975.
193) Patrick SW, Kaplan HC, Passarella M, **Davis MM,** Lorch SA. Variation in treatment of neonatal abstinence syndrome in US children's hospitals. *J Perinatol.* 2014;34:867-872.
194) Sun GH, MacEachern MP, Perla RJ, Gaines JM, **Davis MM,** et al. Health care quality improvement publication trends. *Am Jour Med Qual.* 2014;29:403-407.
195) Barbaro RP, Odetola FO, Kidwell KM, Paden ML, Bartlett RH, **Davis MM*,** Annich GM* (*=joint senior authorship). Association of hospital-level volume of extracorporeal membrane oxygenation cases and mortality: analysis of the extracorporeal life support organization registry. *Am J Respir Crit Care Med.* 2015;191:894-901.
196) Jensen KM, Sevick CJ, Seewald LAS, Halbower AC, **Davis MM,** McCabe ERB, et al. Greater risk of hospitalization in children with Down syndrome and OSA at higher elevation. *Chest.* 2015;147:1344-1351.
197) Patrick SW, **Davis MM,** Lehman CU, Cooper WO. Increasing incidence and geographic distribution of neonatal abstinence syndrome: United States 2009 to 2012. *J Perinatol.* Published online first 30 Apr 2015; doi:10.1038/jp.2015.36.
198) Krans EE, Moloci NM, Housey MT, **Davis MM.** Impact of psychosocial risk factors on prenatal care delivery: a national provider survey. *Matern Child Health J.* 2014;18:2362-2370
199) Pynonnen MA, Lynn S, Kern HE, Novis SJ, Akkina SR, Keshavarzi NR, **Davis MM.** Diagnosis and treatment of acute sinusitis in the primary care setting: a retrospective cohort. *Laryngoscope.* 2015; published online first 22 May 2015;doi:10.1002/lary.25363.
200) Auger KA, Jerardi KE, Simmons JE, **Davis MM,** O'Toole JK, Sucharew HJ. It's complicated: overcoming statistical challenges of group learning in medical education research. *J Grad Med Ed.*

2015;7:326-330.

201) Auger KA, **Davis MM.** Pediatric weekend admission and increased unplanned readmission rates. *J Hosp Med.* Published online first 18 Sep 2015, DOI: 10.1002/jhm.2426.

Editorials and Commentaries (non-peer-reviewed)

1) **Davis MM,** Lantos JD. Ethical considerations in the public policy laboratory. *JAMA.* 2000;284:85-87.
2) **Davis MM,** Kemper AR. Valuing childhood vaccines. *J Pediatr.* 2003;143:283-284.
3) **Davis MM.** Race-based immunization recommendations and the potential to reduce racial disparities. *JAMA.* 2004;291:2253-2255.
4) **Davis MM,** Szilagyi PG. Can quality improvement reach into pockets of need for childhood immunizations? *Ambul Pediatr* 2004;4:224-225.
5) **Davis MM.** Planning the next wave of SCHIP research. *Pediatrics.* 2005;115:492-494.
6) **Davis MM.** Varicella vaccine, cost-effectiveness analyses, and vaccination policy. *JAMA.* 2005;294:845-846.
7) Van Cleave J, Kemper AR, **Davis MM.** Interpreting negative results from an underpowered clinical trial: warts and all. *Arch Pediatr Adolesc Med.* 2006;160:1126-1129.
8) Garfield CF, Clark-Kauffman E, **Davis MM.** Fatherhood as a component of men's health. *JAMA.* 2006;296:2365-2368.
9) **Davis MM.** Cardiac rehabilitation as a site for influenza vaccination? *J Cardiopulm Rehabil Prev.* 2007;27:210-211.
10) **Davis MM.** Reasons and remedies for underinsurance for childhood and adolescent vaccines. *JAMA.* 2007;298:680-682.
11) **Davis MM,** Brosco JP. Being specific about being special: definitions of childhood chronic conditions and children with special health care needs. *Arch Pediatr Adolesc Med.* 2007;161:1003-1005.
12) **Davis MM.** Challenges in cost-effectiveness analyses of hospital interventions to improve quality. *Infect Control Hosp Epidemiol.* 2008;29:395-397.
13) **Davis MM,** Shah S. Necessary innovations in immunization delivery. *Arch Pediatr Adolesc Med.* 2009;163:483-485.
14) Shah S, **Davis MM.** Old disease, innovative response: accelerating infant vaccination during a community pertussis outbreak. *JAMA.* 2009;301:2260-2261.
15) Rivara FP, **Davis MM.** Archives journal club just a click away. *Arch Pediatr Adolesc Med.* 2009;163:957.
16) **Davis MM.** Medicaid, underinsurance, and the dawn of an era for children's coverage. *Pediatrics.* 2010;125:817-819.
17) **Davis MM.** Price as a double-edged sword in the golden era of vaccines. *Human Vaccines.* 2010;6:689-693.
18) **Davis MM.** The conundrum of combination vaccines. *Arch Pediatr Adolesc Med.* 2010;164:1171-1172.
19) Chopra V, **Davis MM.** In search of equipoise. *JAMA.* 2011;305:1234-1235.
20) **Davis MM,** Dayoub E. A strategic approach to therapeutic cancer vaccines in the 21st century. *JAMA.* 2011;305:2343-2344.
21) **Davis MM,** CP Gross, CM Clancy. Building a bridge to somewhere better: linking health care research and health policy. *Health Services Res.* 2012:47:329-336.
22) Krans EE, **Davis MM.** *Preventing Low Birthweight:* 25 years, prenatal risk, and the failure to reinvent prenatal care. *Amer Jour Obstet Gynecol.* 2012;206:398-403.

23) Christakis DA, Joffe A, Keren R, **Davis MM,** Shah SS, Rivara FP. Introducing *JAMA Pediatrics. Arch Pediatr Adolesc Med.* 2012;166:663.
24) **Davis MM,** Riebschleger MP. The next century of children's health care: addressing disparities, workforce deficiencies, and undercoordinated services. *Arch Pediatr Adolesc Med.* 2011;165:1067-1068.
25) Vickery KD, Sauser K, **Davis MM.** Policy responses to demand for health care access: from the individual to the population. *JAMA.* 2013;309:665-666.
26) Patrick SW, **Davis MM.** Reformulating the federal match as a key to the sustainability of Medicaid. *JAMA Pediatr.* 2013;167:218-220.
27) **Davis MM.** Stunting the growth of child health research: a need to reframe "children are not small adults." *JAMA Pediatr.* 2013;167:598-599.

Non-Peer-Reviewed Publications and Published Letters

1) **Davis MM**. Music as a means of public health education among Guatemalan schoolchildren. Honors thesis, Harvard Medical School, Boston, 1994.
2) **Davis, MM.** Health through song: Outreach workers in Benin and Guatemala use lyrics to promote health. *Harv Med Alumni Bull.* 1999;73:36-41.
3) **Davis MM.** Health behaviors (helping patients change). In: *Pocket Primary Care.* LK Halasyamani, BP Lucas, eds. Philadelphia: Lippincott Williams & Wilkins, 2001. pp. 4-5.
4) **Davis MM.** Effects and ethics of sanctions on childhood immunization rates. *JAMA.* 2000;284:2057. [letter]
5) **Davis MM,** Bruckman D, Cabana MD, Clark SJ, Dombkowski KJ, Kemper AR, Rushton JL, Freed GL. Constructive use of race and ethnicity variables. *Arch Pediatr Adol Med.* 2001;155:973. [letter]
6) **Davis MM,** Kemper AR. Valuing vaccines. *J Pediatr.* 2004;145:568. [letter]
7) **Davis MM.** Effect of pneumococcal vaccination on quality of life in children with recurrent acute otitis media: a randomized, controlled trial. *J Pediatr.* 2005;147:124-125. [comment]
8) **Davis MM.** Cost-effectiveness of conjugate meningococcal vaccination strategies in the United States. *J Pediatr.* 2005;147:407-408. [comment]
9) **Davis MM.** Acellular pertussis vaccine is protective for adolescents and adults. *J Pediatr.* 2006;148:417. [comment]
10) **Davis MM,** Patel MS, Halasyamani LK. Medicare prescription drug plan costs and affordability. *J Gen Intern Med.* 2007;available at: http://www.springerlink.com/content/a8v3r3712v7732v1/fulltext.pdf.
11) Patrick SW, Schumacher RE, **Davis MM.** Neonatal abstinence syndrome—reply. *JAMA.* 2012;308:762-764. [letter]

Research and Policy Briefs (non-peer reviewed)

1) **Davis MM,** Hibbard JH, Milstein A. Consumer tolerance for inaccuracy in physician performance ratings: one size fits none. Center for Studying Health System Change, Washington, DC: Issue Brief No. 110, March 2007. Available at: http://www.hschange.org/CONTENT/921/.
2) **Davis MM,** Singer DC, Clark SJ. More children expected to seek care at retail clinics. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 1, Issue 1, April 2007. Available at: http://www.med.umich.edu/mott/research/chearretailpoll.html
3) **Davis MM,** Singer DC, Clark SJ. Smoking, drugs, and obesity top public's list of health problems for children. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 1, Issue 2, May 2007. Available at:

http://www.med.umich.edu/mott/research/chearhealthconcernpoll.html

4) **Davis MM,** Singer DC, Clark SJ. Majority of parents not in favor of state HPV vaccine mandates. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 1, Issue 3, May 2007. Available at: http://www.med.umich.edu/mott/research/chearhpvvaccine.html
5) **Davis MM,** Tarini B, Singer DC, Clark SJ. DNA biobanks and genetic testing – for whom, and when? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 1, Issue 4, June 2007. Available at: http://www.med.umich.edu/mott/research/cheargenetictesting.html
6) **Davis MM,** Singer DC, Clark SJ. Covering families: how generous should SCHIP be? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 1, Issue 5, August 2007. Available at: http://www.med.umich.edu/mott/research/chearschip.html
7) **Davis MM,** Singer DC, Clark SJ. Flu vaccination among children may reach all-time high this year. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 2, Issue 1, October 2007. Available at: http://www.med.umich.edu/mott/research/chearflupoll.html
8) **Davis MM,** Singer DC, Clark SJ. Do high gas prices lead to less health care for kids? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 2, Issue 2, November 2007. Available at: http://www.med.umich.edu/mott/research/cheargascard.html
9) **Davis MM,** Singer DC, Clark SJ. Parental concerns about childhood obesity: time for a reality check? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 2, Issue 3, December 2007. Available at: http://www.med.umich.edu/mott/research/chearbmi.html.
10) **Davis MM,** Dempsey A, Singer DC, Clark SJ. Adolescent check-ups: parents want diet, drugs, and sex discussed. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 2, Issue 4, January 2008. Available at: http://www.med.umich.edu/mott/research/chearcheckup.html.
11) **Davis MM,** Singer DC, Clark SJ. Adults and kids less protected than anticipated against the flu. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 3, Issue 1, January 2008. Available at: http://www.med.umich.edu/mott/research/chearfluupdate.html.
12) **Davis MM,** Singer DC, Butchart A, Clark SJ. Nearly 70 million Americans using discount generic prescription drug programs. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 3, Issue 2, February 2008. Available at: http://www.med.umich.edu/mott/research/cheardgrxprogram.html.
13) **Davis MM,** Singer DC, Butchart A, Clark SJ. Child health threats: are consumer alerts enough? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 3, Issue 3, March 2008. Available at: http://www.med.umich.edu/mott/research/chearconsumeralerts.html.
14) **Davis MM,** Yoon EY, Singer DC, Butchart A, Clark SJ. Ask the doctor: Is my child's medicine FDA-approved? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 3, Issue 4, April 2008. Available at: http://www.med.umich.edu/mott/research/chearFDAapprovedmedicines.html.
15) **Davis MM,** Singer DC, Butchart A, Clark SJ. Children in research: many parents willing if risk of harm is small. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 3, Issue 5, May 2008. Available at: http://www.med.umich.edu/mott/research/chearChildrenInResearch.html.
16) **Davis MM,** Singer DC, Butchart A, Clark SJ. Summer safety for 'tweens' home alone. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 4, Issue 1, June 2008. Available at: http://www.med.umich.edu/mott/research/chearSummerSafety.html.
17) **Davis MM,** Singer DC, Butchart A, Clark SJ. Obesity tops list of biggest health problems for kids in 2008. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan.

Vol 4, Issue 2, July 2008. Available at: http://health.med.umich.edu/body.cfm?id=415.

18) **Davis MM,** Singer DC, Butchart A, Clark SJ. Retail clinics: an emerging source of health care for children. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 4, Issue 3, August 2008. Available at: http://health.med.umich.edu/body.cfm?id=480.
19) **Davis MM,** Singer DC, Butchart A, Clark SJ. Bullying worries parents of overweight and obese children. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 4, Issue 4, September 2008. Available at: http://health.med.umich.edu/home_npch.cfm?id=325.
20) **Davis MM,** Singer DC, Butchart A, Clark SJ. Who do voters prefer for children's health issues? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 5, Issue 1, October 2008. Available at: http://health.med.umich.edu/body.cfm?id=507.
21) **Davis MM,** Singer DC, Butchart A, Clark SJ. Knowledge key to support for embryonic stem cell research. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 5, Issue 2, October 2008. Available at: http://health.med.umich.edu/body.cfm?id=514.
22) **Davis MM,** Singer DC, Butchart A, Clark SJ. Parents of high school athletes speak out on performance-enhancing drugs. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 5, Issue 3, November 2008. Available at: http://health.med.umich.edu/body.cfm?id=521.
23) **Davis MM,** Singer DC, Butchart A, Clark SJ. Mental health services for children and adolescents: missed opportunities in primary care & barriers to specialty care. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 5, Issue 4, December 2008. Available at: http://health.med.umich.edu/body.cfm?id=529.
24) **Davis MM,** Singer DC, Butchart A, Clark SJ. For 12 million uninsured children, high barriers to dental care. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 5, Issue 5, February 2009. Available at: http://health.med.umich.edu/body.cfm?id=538.
25) **Davis MM,** Singer DC, Butchart A, Clark SJ. Private insurance in peril: millions of parents worried about costs, coverage. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 6, Issue 1, March 2009. Available at: http://health.med.umich.edu/body.cfm?id=547.
26) **Davis MM,** Singer DC, Butchart A, Clark SJ. Sweet danger – public links alcopops, underage drinking. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 6, Issue 2, April 2009. Available at: http://health.med.umich.edu/workfiles/npch/040609report.pdf.
27) O'Malley AS, Tynan A, Cohen G, Kemper NM, **Davis MM.** Coordination of care by primary care practices: strategies, lessons and implications. Center for Studying Health System Change, Research Brief No. 12. Available at: http://www.hschange.org/CONTENT/1058/1058.pdf.
28) **Davis MM,** Leo H, Singer DC, Butchart A, Clark SJ. Are schools doing enough for food-allergic kids? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 6, Issue 3, May 2009. Available at: http://health.med.umich.edu/home_npch.cfm?id=325.
29) **Davis MM,** Singer DC, Butchart A, Clark SJ. Bicycle helmet laws effective but not yet the norm. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 6, Issue 4, June 2009. Available at: http://health.med.umich.edu/home_npch.cfm?id=325.
30) **Davis MM,** Singer DC, Butchart A, Clark SJ. For kids, hard economic times mean more stress, fewer doctor visits. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 7, Issue 1, July 2009. Available at: http://health.med.umich.edu/body.cfm?id=586.
31) **Davis MM,** Singer DC, Butchart A, Clark SJ. Public concern rising about childhood obesity. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 7, Issue 2, August 2009. Available at: http://www.med.umich.edu/mott/npch/reports/publicconcern.htm.

32) **Davis MM,** Singer DC, Butchart A, Clark SJ. Healthy food choices: can schools improve their grades? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 7, Issue 3, August 2009. Available at: http://www.med.umich.edu/mott/npch/reports/foodchoice.htm.
33) **Davis MM,** Singer DC, Butchart A, Clark SJ. Parents pan school performance on bullying prevention. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 7, Issue 4, September 2009. Available at: http://www.med.umich.edu/mott/npch/reports/safeschool.htm.
34) **Davis MM,** Singer DC, Butchart A, Clark SJ. Parents may underestimate the risks of H1N1 flu for their children. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 8, Issue 1, September 2009. Available at: http://www.med.umich.edu/mott/npch/reports/h1n1.htm.
35) **Davis MM,** Singer DC, Butchart A, Clark SJ. Public to health care workers: get your H1N1 vaccine. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 8, Issue 2, October 2009. Available at: http://www.med.umich.edu/mott/npch/reports/flushot.htm.
36) **Davis MM,** Singer DC, Butchart A, Clark SJ. Internet predators, privacy and porn concern parents. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 8, Issue 3, November 2009. Available at: http://www.med.umich.edu/mott/npch/reports/internetsafety.htm.
37) **Davis MM,** Singer DC, Butchart A, Clark SJ. In age of 'sexting', parents weigh options to block inappropriate content. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 8, Issue 4, December 2009. Available at: http://www.med.umich.edu/mott/npch/reports/cellphone.htm.
38) **Davis MM,** Singer DC, Butchart A, Clark SJ. Health care provider recommendations key to H1N1 vaccination. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 9, Issue 1, January 2010. Available at: http://www.med.umich.edu/mott/npch/reports/h1h1vac.htm.
39) **Davis MM,** Singer DC, Butchart A, Clark SJ. Is the vaccine worse than the disease? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 9, Issue 2, February 2010. Available at: http://www.med.umich.edu/mott/npch/reports/h1n1immunization.htm.
40) **Davis MM,** Macy ML, Singer DC, Butchart A, Clark SJ. Many parents not using booster seats, unaware of state laws for kids 4-8 years old. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 9, Issue 3, March 2010. Available at: http://www.med.umich.edu/mott/npch/reports/boosterseat.htm.
41) **Davis MM,** Singer DC, Butchart A, Clark SJ. Speak or spank? More parents choose reasoning than physical discipline. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 9, Issue 4, April 2010. Available at: http://www.med.umich.edu/mott/npch/reports/spank.htm.
42) **Davis MM,** Singer DC, Butchart A, Clark SJ. "ePediatrics": Parents want more communication with their kids' doctors. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 9, Issue 5, May 2010. Available at: http://www.med.umich.edu/mott/npch/reports/communication.htm.
43) Clark SJ, Singer DC, Butchart A, **Davis MM**. Concussions in school sports: parents ill-prepared for role in reducing kids' risks. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 10, Issue 1, June 2010. Available at: http://www.med.umich.edu/mott/npch/reports/concussions.htm.
44) Tarini BA, **Davis MM,** Singer DC, Butchart A, Clark SJ. Most parents interested in at-home genetic testing for their kids. C.S. Mott Children's Hospital National Poll on Children's Health, University of

Michigan. Vol 10, Issue 2, July 2010. Available at: http://www.med.umich.edu/mott/npch/reports/genetic.htm.

45) **Davis MM,** Singer DC, Butchart A, Clark SJ. Obesity, stress, teen pregnancy top children's health problems and getting worse. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 10, Issue 3, August 2010. Available at: http://www.med.umich.edu/mott/npch/reports/topten.htm.
46) **Davis MM,** Singer DC, Butchart A, Clark SJ. For e-cigarettes, public supports health warnings and ban on sales to minors. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 10, Issue 4, September 2010. Available at: http://www.med.umich.edu/mott/npch/reports/ecigaretts.htm.
47) **Davis MM,** Singer DC, Butchart A, Clark SJ. Parent views on medical research—safety of vaccines and medicines top priorities. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 11, Issue 1, October 2010. Available at: http://www.med.umich.edu/mott/npch/reports/medicalresearch.htm.
48) **Davis MM,** Singer DC, Butchart A, Clark SJ. Gun shy? 14 million parents have never talked gun safety with their kids. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 11, Issue 2, November 2010. Available at: http://www.med.umich.edu/mott/npch/reports/gunshy.htm.
49) **Davis MM,** Singer DC, Butchart A, Clark SJ. Strong public support for innovative programs to prevent teen pregnancy. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 11, Issue 3, January 2011. Available at: http://www.med.umich.edu/mott/npch/reports/pregnancy.htm.
50) **Davis MM,** Lewis TC, Hershenson M, Singer DC, Butchart A, Clark SJ. Tobacco: a smoking gun for kids' asthma attacks. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 11, Issue 4, January 2011. Available at: http://www.med.umich.edu/mott/npch/reports/smoking.htm.
51) **Davis MM,** Singer DC, Butchart A, Clark SJ. Despite warnings, parents continue to use cough and cold medicines for young kids. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 12, Issue 1, February 2011. Available at: http://www.med.umich.edu/mott/npch/reports/coldmed.htm.
52) **Davis MM,** Singer DC, Butchart A, Clark SJ. Parents wants explanations, not scare tactics, from the media about children's health. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 12, Issue 2, March 2011. Available at: http://www.med.umich.edu/mott/npch/reports/explanation.htm.
53) **Davis MM,** Singer DC, Butchart A, Clark SJ. Gym gone but not forgotten? Parents want more physical activity at school for kids. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 12, Issue 3, April 2011. Available at: http://www.med.umich.edu/mott/npch/reports/gym.htm.
54) **Davis MM,** Woolford SJ, Singer DC, Butchart A, Clark SJ. Bariatric surgery for teens: how young is too young? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 12, Issue 4, May 2011. Available at: http://www.med.umich.edu/mott/npch/reports/bariatric.htm.
55) **Davis MM,** Singer DC, Butchart A, Clark SJ. Few parents enforce shower-before-pool rules that prevent illness from water parks. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 13, Issue 1, June 2011. Available at: http://www.med.umich.edu/mott/npch/reports/watersafety.htm.
56) **Davis MM,** Singer DC, Butchart A, Clark SJ. Most parents unaware of research opportunities for their children. C.S. Mott Children's Hospital National Poll on Children's Health, University of

Michigan. Vol 13, Issue 2, July 2011. Available at: http://www.med.umich.edu/mott/npch/reports/researchopp.htm.

57) **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. Drug abuse now equals childhood obesity as top health concern for kids. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 13, Issue 3, August 2011. Available at: http://www.med.umich.edu/mott/npch/reports/topten2011.htm.
58) **Davis MM,** Biermann B, Marcus S, Hua L, Singer DC, Butchart A, Kauffman AD, Clark SJ. Parents say, "Other teens drink and use marijuana, but my kids don't." C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 13, Issue 4, September 2011. Available at: http://www.med.umich.edu/mott/npch/reports/substanceuse.htm .
59) Macy ML, **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. Parents turning car seats to face forward too early. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 13, Issue 5, September 2011. Available at: http://www.med.umich.edu/mott/npch/reports/carseats.htm.
60) **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. Many young children off to a poor start with dental health. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 13, Issue 6, October 2011. Available at: http://www.med.umich.edu/mott/npch/reports/dentalhealth.htm.
61) **Davis MM,** Mohr B, Markman L, Singer DC, Butchart A, Kauffman AD, Clark SJ. Many infants at risk in unsafe sleep settings. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 13, Issue 7, November 2011. Available at http://mottnpch.org/reports-surveys/many-infants-risk-unsafe-sleep-settings.
62) Clark SJ, Sekhar DL, Singer DC, Butchart A, Kauffman AD, **Davis MM**. Silent risk: most parents and teens not talking about noise-induced hearing loss. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 14, Issue 1, December 2011. Available at: http://mottnpch.org/reports-surveys/silent-risk-most-parents-and-teens-not-talking-about-noise-induced-hearing-loss.
63) **Davis MM,** Rosen DS, Christner J, Singer DC, Butchart A, Kauffman AD, Clark SJ. School obesity programs may promote worrisome eating behaviors and physical activity. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 14, Issue 2, January 2012. Available at: http://mottnpch.org/reports-surveys/school-obesity-programs-may-promote-worrisome-eating-behaviors-and-physical-activity.
64) Clark SJ, Singer DC, Butchart A, Kauffman AD, **Davis MM**. Too much of a good thing? Kids in low-income families drink more juice than recommended. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 14, Issue 3, February 2012. Available at: http://mottnpch.org/reports-surveys/too-much-good-thing-kids-low-income-families-drink-more-juice-recommended.
65) **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. For youth sexting: public supports education, not criminal charges. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 15, Issue 1, March 2012. Available at: http://www.mottnpch.org/reports-surveys/youth-sexting-public-supports-education-not-criminal-charges.
66) **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. Easy-access medicines a poisoning risk for kids at home. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 15, Issue 2, April 2012. Available at: http://www.mottnpch.org/reports-surveys/easy-access-medicines-poisoning-risk-kids-home.
67) Clark SJ, Singer DC, Butchart A, Kauffman AD, **Davis MM**. Pay-to-play sports keeping low-income kids out of the game. C.S. Mott Children's Hospital National Poll on Children's Health, University

of Michigan. Vol 15, Issue 3, May 2012. Available at: http://www.mottnpch.org/reports-surveys/pay-play-sports-keeping-lower-income-kids-out-game.

68) **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. Public wants Presidential candidates to address childhood obesity, bullying. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 16, Issue 1, June 2012. Available at: http://www.mottnpch.org/reports-surveys/public-wants-presidential-candidates-address-childhood-obesity-bullying.
69) Clark SJ, Singer DC, Butchart A, Kauffman AD, **Davis MM**. Public reluctant to support teen HPV vaccination without parental consent. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 16, Issue 2, July 2012. Available at: http://www.mottnpch.org/reports-surveys/public-reluctant-support-teen-hpv-vaccination-without-parental-consent.
70) **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. Top 10 child health concerns: exercixe, obesity, smoking lead list. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 16, Issue 3, August 2012. Available at: http://www.mottnpch.org/reports-surveys/top-10-child-health-concerns-exercise-obesity-smoking-lead-list.
71) **Davis MM,** Singer DC, Butchart A, Kauffman AD, Clark SJ. Bullying: when should schools take action? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 16, Issue 4, September 2012. Available at: http://www.mottnpch.org/reports-surveys/bullying-when-should-schools-take-action.
72) **Davis MM,** Hashikawa A, Singer DC, Butchart AT, Kauffman AD, Clark SJ. Sick kids, struggling parents. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 16, Issue 5, October 2012. Available at: http://www.mottnpch.org/reports-surveys/sick-kids-struggling-parents.
73) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Public supports expanded Internet safety requirements to protect kids. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 17, Issue 1, November 2012. Available at: http://www.mottnpch.org/reports-surveys/public-supports-expanded-internet-safety-requirements-protect-kids.
74) **Davis MM,** Lesperance M, Handelsman J, Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Parents loud and clear: test tweens and teens for hearing loss, too. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 17, Issue 2, December 2012. Available at: http://mottnpch.org/reports-surveys/parents-loud-and-clear-test-teens-and-tweens-hearing-loss-too.
75) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, **Davis MM.** Parents numb to misuse of narcotic pain medicines by youth? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 17, Issue 3, January 2013. Available at: http://mottnpch.org/reports-surveys/parents-numb-misuse-narcotic-pain-medicines-youth.
76) **Davis MM,** Udow-Phillips M, Riba M, Young D, Royan R. Primary care capacity and health reform: is Michigan ready? January 2013. Center for Healthcare Research and Transformation. Ann Arbor, MI. Available at: http://www.chrt.org/public-policy/policy-briefs/primary-care-capacity-and-health-reform-is-michigan-ready/.
77) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. How to select a child's doctor? Parents prefer grapevine to online. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 17, Issue 4, February 2013. Available at: http://mottnpch.org/reports-surveys/how-select-child%E2%80%99s-doctor-parents-prefer-grapevine-online.
78) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Just what the doctor ordered? Not

for many parents. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 18, Issue 1, March 2013. Available at: http://mottnpch.org/reports-surveys/just-what-doctor-ordered-not-many-parents.

79) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Parents ignore warning labels, give cough and cold meds to young kids. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 18, Issue 2, April 2013. Available at: http://mottnpch.org/reports-surveys/parents-ignore-warning-labels-give-cough-cold-meds-young-kids.

80) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. One in ten teens using "study drugs," but are parents paying attention? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 18, Issue 3, May 2013. Available at: http://mottnpch.org/reports-surveys/one-ten-teens-using-%E2%80%9Cstudy-drugs%E2%80%9D-are-parents-paying-attention.

81) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Protecting newborns from whooping cough. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 18, Issue 4, June 2013. Available at: http://mottnpch.org/reports-surveys/protecting-newborns-whooping-cough.

82) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Broad public support for banning smoking in vehicles with kids present. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 19, Issue 1, July 2013. Available at: http://mottnpch.org/reports-surveys/broad-public-support-banning-smoking-vehicles-kids-present.

83) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Top child health concerns: obesity, drug abuse, and smoking. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 19, Issue 2, August 2013. Available at: http://mottnpch.org/reports-surveys/top-child-health-concerns-obesity-drug-abuse-and-smoking.

84) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Top public priorities for children's health research: cancer, diabetes, birth defects. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 19, Issue 3, September 2013. Available at: http://mottnpch.org/reports-surveys/top-public-priorities-children%E2%80%99s-health-research-cancer-diabetes-birth-defects.

85) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, **Davis MM.** Email consultation: co-pay or no-pay? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 19, Issue 4, October 2013. Available at: http://mottnpch.org/reports-surveys/email-consultation-co-pay-or-no-pay.

86) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Medical research needs kids, but parents not aware of opportunities. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 19, Issue 5, November 2013. Available at: http://mottnpch.org.reports-surveys/medical-research-needs-kids-parents-not-aware-opportunities.

87) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Adults worry e-cigarettes will encourage kids to start smoking tobacco. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 20, Issue 1, December 2013. Available at: http://mottnpch.org/reports-surveys/adults-worry-e-cigarettes-will-encourage-kids-start-smoking-tobacco.

88) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, **Davis MM.** Seeing specialists: Roles of parents and providers unclear. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 20, Issue 2, January 2014. Available at: http://mottnpch.org/reports-surveys/seeing-specialists-roles-parents-providers-unclear.

89) **Davis MM,** Moniz MH, O'Connell LK, Kauffman AD, Singer DC, Gebremariam A, Clark SJ.

"Breast is best" but uninsured parents take breastfeeding classes less often. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 20, Issue 3, February 2014. Available at: http://mottnpch.org/reports-surveys/%E2%80%9Cbreast-best%E2%80%9D-uninsured-parents-take-breastfeeding-classes-less-often.

90) Clark SJ, Greenhawt M, Kauffman AD, Singer DC, Gebremariam A, **Davis MM.** Nut-free lunch? Parents speak out. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 20, Issue 4, March 2014. Available at: http://mottnpch.org/reports-surveys/nut-free-lunch-parents-speak-out.
91) **Davis MM,** Inniss AK, Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Screening out screen time: Parents limit media use for young children. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 21, Issue 1, April 2014. Available at: http://mottnpch.org/reports-surveys/screening-out-screen-time-parents-limit-media-use-young-children.
92) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Fighting childhood obesity: Are schools passing or failing? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 21, Issue 2, May 2014. Available at: http://mottnpch.org/reports-surveys/fighting-childhood-obesity-are-schools-passing-or-failing.
93) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, **Davis MM.** Sports physicals: convenient versus comprehensive? C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 21, Issue 3, June 2014. Available at: http://mottnpch.org/reports-surveys/sports-physicals-convenient-versus-comprehensive.
94) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, **Davis MM.** The circumcision decision: Parents want info, not directives, from docs. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 21, Issue 4, July 2014. Available at: http://mottnpch.org/reports-surveys/circumcision-decision-parents-want-info-not-directives-docs.
95) **Davis MM,** Kauffman AD, Singer DC, Gebremariam A, Clark SJ. School violence, gun-related injuries in top 10 child health concerns in U.S. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 22, Issue 1, August 2014. Available at: http://mottnpch.org/reports-surveys/school-violence-gun-related-injuries-top-10-child-health-concerns-us.
96) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, **Davis MM.** Head smart? Parents get confidence boost from concussion education. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 22, Issue 2, September 2014. Available at: http://mottnpch.org/reports-surveys/head-smart-parents-get-confidence-boost-concussion-education.
97) **Davis MM,** Woolford SJ, Kauffman AD, Singer DC, Gebremariam A, Clark SJ. Nutrition facts: how moms and dads view labels differently. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 22, Issue 3, October 2014. Available at: http://mottnpch.org/reports-surveys/nutrition-facts-how-moms-and-dads-view-labels-differently.
98) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, Matos-Moreno A, **Davis MM.** Parents support daycare policies to get kids up-to-date on vaccines. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 22, Issue 4, November 2014. Available at: http://mottnpch.org/reports-surveys/parents-support-daycare-policies-get-kids-date-vaccines.
100) **Davis MM,** Fredericks E, Kauffman AD, Singer DC, Gebremariam A, Matos-Moreno A, Clark SJ. Can their 18-year-olds make a doctor's appointment? Half of parents say no. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 22, Issue 5, December 2014. Available at: http://mottnpch.org/reports-surveys/can-their-18-year-olds-make-doctor%E2%80%99s-appointment-half-parents-say-no.
101) **Davis MM,** for the Michigan Department of Community Health. Recommendations for addressing

the needs of high utilizer / super utilizer patients in Michigan. Submitted to the Michigan Legislature, December 2014.

102) Clark SJ, Kauffman AD, Singer DC, Gebremariam A, Matos-Moreno A, **Davis MM.** Pay-to-play sports keeping some kids on the sidelines. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 22, Issue 6, January 2015. Available at: http://mottnpch.org/reports-surveys/pay-play-sports-keeping-some-kids-sidelines.

103) **Davis MM,** Kauffman AD, Singer DC, Matos-Moreno A, Clark SJ. Parents conflicted about later school start times for teens. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 23, Issue 1, February 2015. Available at: http://mottnpch.org/reports-surveys/parents-conflicted-about-later-school-start-times-teens.

104) Clark SJ, Kauffman AD, Singer DC, Matos-Moreno A, **Davis MM.** Parents on social media: likes and dislikes of sharenting. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 23, Issue 2, March 2015. Available at: http://mottnpch.org/reports-surveys/parents-social-media-likes-and-dislikes-sharenting.

105) **Davis MM,** Kauffman AD, Singer DC, Matos-Moreno A, Clark SJ. Support for medical marijuana use lower for kids than for adults. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 23, Issue 3, April 2015. Available at: http://mottnpch.org/reports-surveys/support-medical-marijuana-use-lower-kids-adults.

106) Clark SJ, Kauffman AD, Singer DC, Matos-Moreno A, **Davis MM.** Many parents missing the link between child behavior and health. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 23, Issue 4, May 2015. Available at: http://mottnpch.org/reports-surveys/many-parents-missing-link-between-child-behavior-and-health.

107) **Davis MM,** Kauffman AD, Singer DC, Matos-Moreno A, Clark SJ. Too convenient? Majority of adults support bans on powdered alcohol. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 24, Issue 1, June 2015. Available at: http://mottnpch.org/reports-surveys/too-convenient-majority-adults-support-bans-powdered-alcohol.

108) **Davis MM,** Kauffman AD, Singer DC, Matos-Moreno A, Clark SJ. Safer, with more benefits: parents' views on vaccines shifting. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 24, Issue 2, July 2015. Available at: http://mottnpch.org/reports-surveys/safer-more-benefits-parents%E2%80%99-vaccines-views-shifting.

109) **Davis MM,** Kauffman AD, Singer DC, Matos-Moreno A, Clark SJ. Top 10 child health problems: more concern for sexting, Internet safety. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 24, Issue 3, August 2015. Available at: http://mottnpch.org/reports-surveys/top-10-child-health-problems-more-concern-sexting-internet-safety.

110) Clark SJ, Kauffman AD, Singer DC, Matos-Moreno A, **Davis MM.** Parents conflicted about how to label, punish cyberbullying. C.S. Mott Children's Hospital National Poll on Children's Health, University of Michigan. Vol 24, Issue 4, September 2015. Available at: http://mottnpch.org/reports-surveys/parents-conflicted-about-how-label-punish-cyberbullying.

Opinion/Editorial Publications in Lay Press (non-peer-reviewed)

1) **Davis MM.** Expanding kids' care won't socialize medicine. *The Detroit News.* October 10, 2007.
2) Osta AD, **Davis MM.** 'Going green' means gasping for air. *The Detroit News.* January 9, 2008.
3) Tarini BA, **Davis MM.** Laws won't erase genetic dilemmas. *The Detroit News.* May 28, 2008.
4) **Davis MM.** Use Michigan's existing tobacco laws to cover e-cigarettes. *The Detroit Free Press.* May 6, 2014.

GALARDI ROTHSTEIN GROUP

Eric P. Rothstein, CPA

Principal

Education

MA, Economics, University of California-Davis, 1983
A.B., Economics, Ripon College, 1981

Distinguishing Qualifications

- Experienced Project Manager that has established strategic financial plans and designed rates for some of the nation's largest, most complex infrastructure programs and has secured acceptance of major, multi-year rate increases in politically charged environments.
- Expert in regionalization, facilitation of complex decisions affecting diverse stakeholder groups, evaluation of public/private partnerships, and strategic business planning.
- National leadership roles in the water industry including the Water Environment Federation (WEF) Utility Management Committee and American Water Works Association's (AWWA) Competitive Practices and Rates and Charges Committees.

Expert Witness Depositions and Testimony

- Direct Testimony by Declaration (2014) - Superior Court Of California, County of Los Angeles, Central District, Cities of Cerritos, Downey and Signal Hill vs. Water Replenishment District of Southern California, Lead Case No. Bs128136
- Expert Witness Testimony (2013) – Nova Scotia Utility and Review Board: In the Matter of a Joint Application by the Halifax Regional Water Commission and the Halifax-Dartmouth Bridge Commission for a Determination of Appropriate Charges Related to the Use of the Angus L. Macdonald. (M06127)
- Expert Report (2013) - San Diego County Water Authority v. Metropolitan Water District of Southern California, Case No: CPF-10-510830 and CPF-12-512466, Superior Court of California, County of San Francisco, regarding rate setting challenges.
- Expert Witness Testimony (2013) –Hawaii Public Utilities Commission, In the Matter of the Application of Hawaiian Beaches Water Company, Inc., for review and approval of rate increases; revised rate schedules, Docket No. 2013-0203.
- Deposition And Expert Witness Testimony (2013): United States Bankruptcy Court, Northern District Of Alabama, Southern Division, In Re: Jefferson County, Alabama, a political subdivision of the State Of Alabama, Debtor, Case No.: 11-05736-Tbb, Chapter 9, The Bank Of New York Mellon as Indenture Trustee, et al., Plaintiffs v. Jefferson County, Alabama, Defendant, AP No.: 12-00016-Tbb,
- Expert Witness Testimony (2013) – Nova Scotia Utility and Review Board: Application for the Approval of a Schedule of Rates and Charges and Schedule of Rules and Regulations for the Delivery of Water, Wastewater and Stormwater Services, Matter No. M05463

- Expert Witness Testimony (2012) - Public Service Commission of Wisconsin: Application of City of Waukesha Water Utility, Waukesha County, Wisconsin, for Authority to Increase Water Rates Docket No. 6240-WR-107

- Expert Witness Testimony (2009-2011) – United States District Court, Northern District of Georgia, Atlanta Division, United States of American and the State of Georgia, Plaintiffs v. The City of Atlanta, Defendant, Civil Action File No. 1-98-CV-1956-TWT. (various hearings re: Schedule Extension, Service Delivery Strategy)

- Expert Witness Testimony (2012) – Public Service Commission of Wisconsin: Application of Oak Creek Water and Sewer Utility For Authority to Increase Water Rates, Docket No. 4310-WR-104

- Expert Witness Testimony (2011) – Nova Scotia Utility and Review Board: Application of the Halifax Regional Water Commission for approval of a Cost of Service and Rate Design Methodology (NSUARB-W-HRWC-R-11)

- Expert Witness Testimony (2010, 2014) – Public Service Commission of Wisconsin: Application of Milwaukee Water Works, Milwaukee Water Works, Milwaukee County for Authority to Increase Water Rates, Docket No. 3720-WR-107 and Docket No. 3720-WR-108

- Deposition (2010): The Bank of New York v. Jefferson County, Alabama, Civil Action No. CV-2009-02318.
- Expert Witness Testimony (2009) – Illinois Commerce Commission, Illinois-American Water Company, Proposed general increase in water and sewer rates, Docket No: 07-0507

- Expert Witness Testimony (2009) - In the Court of Appeals of Georgia; Fulton County Georgia et al. v. City of Atlanta, A08A2364

Selected Key Project Experience

For the U.S. Bankruptcy Court, Eastern District of Michigan, Southern Division Eric Rothstein has served as an independent utility advisor for mediation related to the creation of the Great Lakes Water Authority (GLWA). Following execution of a Memorandum of Understanding and Articles of Incorporation by the Incorporating Municipalities (City of Detroit, Macomb, Oakland and Wayne counties, and the State of Michigan), Mr. Rothstein was appointed to serve as Implementation Planning Program Manager for the standup of the GLWA – a regional utility serving approximately 40% of the population of the State of Michigan.

For **Water Replenishment District of Southern California**, Eric Rothstein was engaged to provide an expert report related to the consistency of the District's rate setting requirements with industry-standard practices contemplating proportionate distribution of cost responsibilities based on cost causation. These practices are consistent with prescripts of State of California law.

For Jefferson County, Alabama, Eric Rothstein has served as the County's rate consultant since 2010. He has reviewed cost-of service analyses and alternative rate proposals to address the County's outstanding sewer warrant obligations, developed revisions to its sewer rates approved in November 2012, and again in September 2013, and is leading strategic financial planning related to the County's bankruptcy Plan of Adjustment. Mr. Rothstein has been deposed and provided expert witness testimony in various court proceedings stemming from the County's declaration of bankruptcy in 2011, and has led development of a Municipal Advisor Report related to a planned Series 2013 Sewer Warrant issue to effectuate the County's exit from bankruptcy.

For the **Halifax Regional Water Commission**, Eric Rothstein led development of a Cost of Service and Rate Design report to the Nova Scotia Utility and Accounting Review Board (NSUARB Docket No. NSUARB-W-HRWC-R-11), in response to the Board's Order and Decision to hold separate hearings to determine appropriate

ratemaking methodologies for Canada's first regulated water, wastewater and stormwater utility. Eric led preparation of the report and the development of cost allocation and rate design models to illustrate the implications of alternative methodological approaches. Eric supported development of HRWC's subsequent application for water, wastewater and stormwater rates filed with the NSUARB in December 2012 and provided expert witness testimony in support thereof in April 2012. In April 2014, Eric prepared a HRWC Cost Shares for Use of the Angus L. Macdonald Bridge and provided expert witness testimony in M06127 - Halifax-Dartmouth Bridge Commission/Halifax Regional Water Commission: Waterline on the Angus L. MacDonald Bridge - HDBC-G-14

For the **City of Atlanta**, since 2004, Mr. Rothstein has served as the Department of Watershed Management's primary coordinator for its revenue bond issues used to finance its $3 billion wastewater Consent Decree program. This has included issues in 2004, 2008, 2009 (2), 2013 and 2015 and, in 2006, implementation of its Tax-Exempt Commercial Paper program with a shelf registration of $1.2 billion. Mr. Rothstein led development of the Department's *Financial Capability Based Schedule Extension Request Report* used to secure the City's 13-year extension of its wastewater Consent Decree schedule. He prepared each of the Department's Financial Capability Assessment filings. He has led the development and updating of strategic financial planning tools for water and sewer rate development and policy-level consideration of overall program financing strategies (as well as detailed project expenditure, status, and schedule tracking).

For the **Egyptian Ministry of Housing, through a USAID contract**, Mr. Rothstein developed guidance on tariff setting, capital project prioritization, and strategic planning for the newly established water and wastewater sector regulatory agency. The project involved the development of a guidance manual, detailed financial planning and cost-of-service analysis modeling, and testing of financial analysis and prioritization tools with four major Egyptian utilities. Mr. Rothstein has also provided presentations on financial planning and strategic planning principles to USAID staff and Technical Assistance contractors.

For the **Milwaukee Wholesale Customers**, through sub-contracts with SHEH, Inc., Mr. Rothstein reviewed the Milwaukee Water Works rate increase applications filed in 2010 and 2014, reviewed pre-filed testimony, and offered expert witness testimony related to revenue requirements and appropriate rates of return at hearings before the Wisconsin Public Service Commission.

For several wastewater permittees facing Consent Decrees including the **City of Akron, East Bay Municipal Utility District, Northeast Ohio Regional Sewer District, Metropolitan Sewer District of St. Louis, and the City and County of Honolulu**, Mr. Rothstein has assisted in the conduct of financial capability assessments per EPA prescribed methodologies and in the development of alternative approaches to assessment that more appropriately reflect utility capital financing options. These efforts have been used in the formulation of negotiation positions related to the scope and schedule of potential Consent Decree provisions. Mr. Rothstein is currently engaged with the **City of Peoria, IL** and with the **Guam Waterworks Authority**, in similar Consent Decree negotiations.

For the **National Association of Clean-Water Agencies**, Mr. Rothstein has served as Principal Author for the development of several of the association's white papers and publications related to Financial Capability Assessments used to develop wastewater Consent Decree schedules. These publications include NACWA's *Financial Capability and Affordability in Wet Weather Negotiations* (2007), and *The Evolving Landscape for Financial Capability Assessment: Clean Water Act Negotiations and the Opportunities of Integrated Planning* (2013). These papers provide critical reviews of the U.S. Environmental Protection Agency's (EPA's) established policies and guidance on financial capability assessments for wet weather programs and offers practical guidance for negotiations on enforcement policies and practices related to consideration of financial capability.

For the **City of Winnipeg, Manitoba**, Mr. Rothstein served as Project Manager for a comprehensive cost-of-service rate studies for the City's water, wastewater and stormwater systems conducted in 1997 and 2012. In 1997, the consulting team facilitated decision-making through an extensive public involvement process that

featured monthly meetings of a Citizen's Advisory Committee comprised of a diverse set of stakeholder representatives. For both studies, detailed cost allocation analyses were conducted and customized computer rate analysis models developed to facilitate rate updating for budgetary changes, revision to cost allocations, and rate design modifications.

For **Augusta-Richmond County, Georgia,** Mr. Rothstein has provided strategic financial planning, bond feasibility and comprehensive cost-of-service rate assistance since 2000. Strategic financial planning facilitated the City's adoption of a seven-year, 11 percent per annum rate increase schedule to support infrastructure re-investment in excess of $400 million. Mr. Rothstein managed 3 bond feasibility studies over the course of the program implementation, helping the County to secure strong credit ratings and favorable financing. A cost-of-service study in 2004 involved special queries of a new billing system for development of user characteristic data and consideration of specific cost assignments for previously unsewered portions of the County's wastewater system.

Previous to his work as a utility management consultant, Mr. Rothstein served in several financial management positions for the **City of Austin, Texas**. In this capacity, he directed staffs of up to 22 members in utility ratemaking, evaluation of regionalization alternatives and proposed utility investments, analysis of capital financing options, internal control evaluation, and revenue forecasting.

Certifications / Professional Licenses

Certified Public Accountant
Oregon License No. 7998, June 1995

Membership in Professional Organizations

American Water Works Association

- Strategic Management Practices Committee
- Rates and Charges Sub-Committee
  - Chair, *Water Rate Structures and Pricing*, AWWA M34
  - Member, *Water Rates*, AWWA, M1

International Water Association

- Economics and Statistics Specialist Group
- Editorial Board, Utility Management International (2008-2012)

National Association of Clean Water Agencies

- Utility Management Committee

Water Environment Federation

- Utility Management Committee
  - Chair, Finance and Administration Sub-Committee
  - Chair, *Financing and Charges for Wastewater Systems* (M27), Manual of Practice Task Force
  - Coordinator, Asset Management Hot Topics Workshops, 2005 – 2007
- Technical Practice Committee, Vice Chair

Selected Publications

Sustainability Reporting Statements for Wastewater Systems, WEF Special Publication, October 2012 (Task Force Chair, Chapter 1 Author)

"The Business Case for Low Income Affordability Programs," Proceedings of the AWWA-WEF Utility Management Conference, Miami, FL, February 2012.

GBMSD's Strategic Planning: A Portfolio Management Approach to Effective Utility Management" with Tom Sigmund, Proceedings of the AWWA-WEF Utility Management Conference, Miami, FL, February 2012.

"Financial Sustainability in an Uncertain World" with Debbie Galardi, *Water Utility Management International*, vol. 6, issue 4 (December 2011) pp. 23-27.

"Developing A Financially Sustainable Capital Program to Meet Consent Decree Requirements", *Proceedings of the Water Environment Federation Technology Exposition and Conference (WEFTEC), October 2009*

"Regionalization of Water Service in Central Florida: Capacity Rights Contracting for the Yankee Lake WTF", *Proceedings of the American Water Works Association (AWWA) Annual Conference and Exposition, June 2007 and the Florida Water Resources Conference,* April 2007

"Affordability Tools," Section 8: *Affordability Special Publication*, Water Environment Federation, 2007

"Tough Choices in Paradise: Capital Project Prioritization on Oahu," with Ross Kaneko, Barry Usagawa, Scott Muraoka and Jason Takaki, *Proceedings of the American Water Works Association (AWWA) – Water Environment Federation (WEF) Joint Management Conference*, February 2007 and *Proceedings of the American Water Works Association (AWWA) Annual Conference and Exposition*, June 2007.

"Financial Sustainability As A Foundation For Infrastructure Development And Management: Best Practices" with Debbie Galardi, Water Utility Management International, vol. 2, issue 1 (March 2007) pp. 10-13

Selected Presentations / Seminars

"Exit from Bankruptcy: Jefferson County, Alabama's Historic Plan of Adjustment and $1.7 Billion Sewer Warrant Issue Sustainability Reporting Statements for Wastewater Systems", Utility Management Conference, Austin, TX, February 2015.

"The Business Case for Sustainability Reporting", Sustainability Reporting Statements for Wastewater Systems Special Publication Workshop, WEFTEC 2013, October 2013.

"Building Support for Rate Increases" Central States Water Environment Federation, May 17, 2013

"Which Direction is Your Utility Heading", 2012 Illinois City Managers Association, Galena, Illinois, June 28, 2012

"Financial Sustainability in an Uncertain World", Illinois AWWA, March 2012

"Doing More With Less: Financial Planning and Management in Stressful Times", Central States Water Environment Federation Wisconsin Government Affairs Seminar, February 23, 2012

"Financing Water Utilities' Sustainability Initiatives: Challenging Institutionalized Governance and Market Failures" with Debbie Galardi, Proceedings of the 2012 AWWA Water Sustainability Conference, Portland, Oregon, March 2012.

"Building Support for Rate Increases", 2012 Central States Water Environment Association (CSWEA) Government Affairs Seminar, Madison, WI, February 2012.

"A Season on The Brink: Atlanta's Financial Capability Based Consent Decree Extension" presented at the 2011 AWWA-WEF Utility Management Conference, Denver, CO, February 2011.

"Making Wet Weather Affordable: Never Let A Good Crisis Go To Waste", National Association of Clean Water Agencies Winter Conference, Fort Lauderdale, FL, January 2011.

"Water Efficiency Programs: Risk Management for an Uncertain World", Wisconsin Water Association Conservation Seminar, September 2011.

"Financial Capability Assessment Revisited: Structuring Consent Decrees To Recognize Capital Financing Constraints And Market Change" presented at the 2010 AWWA-WEF Utility Management Conference, San Francisco, CA, February 2010.

"Rock River Water Reclamation District Strategic Financial Planning", Illinois Association of Wastewater Agencies, September 17, 2009

"Socially Responsible Investment in Water Quality: Balancing Community Priorities and Pricing", American Water Works Association Annual Conference and Exposition, Atlanta, GA, June 2009.

"Adaptive Financial Management", CSO Partnership, Chicago, April 2009

"Capital Financing Strategies and Constraints: Lessons of the Political Economy ", National Association of Clean Water Agencies Winter Conference, Atlanta, GA, February 2009.

"Atlanta's Water and Wastewater System Financing: An Update", American Water Works Association Annual Conference and Exposition, Atlanta, GA, June 2008.

"Inside/Outside Rates: Forthcoming Refinements in the M1 Manual", American Water Works Association Annual Conference and Exposition, Atlanta, GA, June 2008.

"Financial Capability Assessments & Affordability: Implications of EPA Criteria", American Water Works Association Annual Conference and Exposition, June 2007

"Proven Financial Management Fundamentals Demonstrated Through National & International Case Studies" presented at the Illinois Section, American Water Works Association conference, Springfield, IL, March 2007

"National Trends Define Strategic Planning Imperatives," presented at the Wisconsin Section, American Water Works Association conference, Wisconsin Dells, WI, September 2006, and Wisconsin Water Environment Association Government Affairs seminar, Madison, WI, March 2007.

"Financial Capability and the Cost of Clean" presented at the National Association of Clean Water Agencies, Winter Conference, St. Petersburg, FL; February 2007.

From: Agen, Jarrod (GOV)
Sent: Tuesday, October 20, 2015 5:55 PM
To: 'Snyder, Rick (GOV)'; 'Calley, Brian (GOV)'
Cc: Clement, Elizabeth (GOV); Scott, Allison (GOV); Muchmore, Dennis (GOV)
Subject: Dr. Lawrence Reynolds, Flint After Action

Rich connected with Dr. Lawrence Reynolds from Flint to join our After Action team.
He's been a long time pediatrician in Flint. Well respected in the community.
He was affiliated with Mott Children Health Center for several years, but is listed as affiliated with Hurley now.
His background looks excellent. He is able to join via phone tomorrow morning.
Let me know if any concerns.
He was suggested by Harvey and vetted by Rich.

Old bio from 2012 here:
https://cfgf.org/cfgf/tabId/394/itemId/222/Dr-Lawrence-Reynolds-Honored-by-CFGF.aspx

Current Listing:
http://health.usnews.com/doctors/lawrence-reynolds-455776

From: Agen, Jarrod (GOV)
Sent: Tuesday, October 20, 2015 5:57 PM
To: Bedan, Morgan (GOV)
Subject: FW: Dr. Lawrence Reynolds, Flint After Action

FYI – should have included you on this. Just sent to G.

From: Agen, Jarrod (GOV)
Sent: Tuesday, October 20, 2015 5:55 PM
To: 'Snyder, Rick (GOV)' <[redacted]; 'Calley, Brian (GOV)' <[redacted]
Cc: Clement, Elizabeth (GOV) <clemente@michigan.gov>; Scott, Allison (GOV) <scotta12@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>
Subject: Dr. Lawrence Reynolds, Flint After Action

Rich connected with Dr. Lawrence Reynolds from Flint to join our After Action team.
He's been a long time pediatrician in Flint. Well respected in the community.
He was affiliated with Mott Children Health Center for several years, but is listed as affiliated with Hurley now.
His background looks excellent. He is able to join via phone tomorrow morning.
Let me know if any concerns.
He was suggested by Harvey and vetted by Rich.

Old bio from 2012 here:
https://cfgf.org/cfgf/tabId/394/itemId/222/Dr-Lawrence-Reynolds-Honored-by-CFGF.aspx

Current Listing:
http://health.usnews.com/doctors/lawrence-reynolds-455776

From: Agen, Jarrod (GOV)
Sent: Thursday, October 22, 2015 12:04 PM
To: Murray, David (GOV); Scott, Allison (GOV)
Subject: Fwd: Western Washtenaw Dems Annual Fall Fundraiser this Saturday (and more!)

See note in email about protests today at UM.

Begin forwarded message:

From: "Mcbride, Bill (GOV)" <mcbrideb@michigan.gov>
Date: October 22, 2015 at 8:17:38 AM EDT
To: "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>
Subject: Fwd: Western Washtenaw Dems Annual Fall Fundraiser this Saturday (and more!)

See below about protest

Making the difference in local, state and national elections. View this email in your browser

Right-click here to download pictures. To help protect your privacy, Outlook prevented automatic download of this picture from the Internet.

October 21, 2015

A few items for your attention today.

NOTE: Tomorrow we'll have the official announcement of our **WCDP Annual Dinner** which takes place on **Sunday, November 8th**. We have some exciting news that I'll reveal tomorrow so be sure to open that email!

WESTERN WASHTENAW DEMS ANNUAL FALL FUNDRAISER - THIS SATURDAY!

This **Saturday, October 24th**, the **Western Washtenaw Dems** will hold their **Annual Fall Fundraiser** from **4-6 p.m. at the Carlyle Grill** (3660 Jackson Road, Scio Township.) The event will feature renowned journalist and political commentator Jack Lessenberry. He will have copies of his new book written with former Michigan Attorney General Frank Kelley, *The People's Lawyer, The Life and Times of Frank J. Kelley, the Nation's Longest Serving Attorney General*, and will be signing copies of the book at the end of the event. Books will be available for purchase for $34.99.

Right-click here to download pictures. To help protect your privacy, Outlook

Facebook

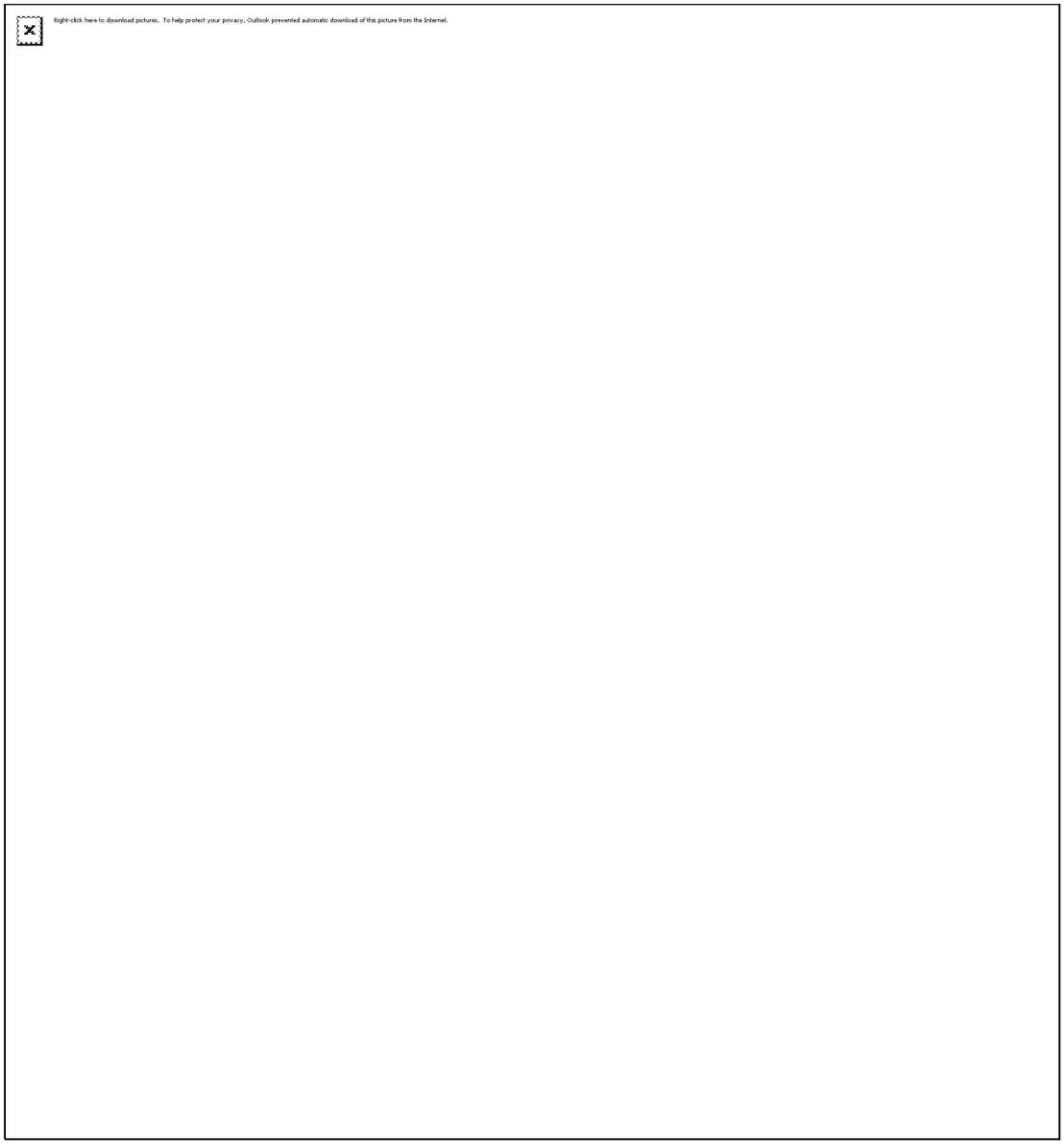
Right-click here to download pictures. To help protect your privacy, Outlook

Website

Right-click here to download pictures. To help protect your privacy, Outlook

Email

Upcoming Events



Come out and support the WWDs so they can continue their fine work supporting Washtenaw Democrats. Tickets are $100 and can be purchased at the door or HERE. Sponsorships are available at the $1,000, $500, and $250 levels. Sponsorships include tickets to the event and copy of Jack Lessenberry's book. Contact Kent Brown at kentbrown2142@gmail.com for more information and to purchase a sponsorship.

Protest Gov. Rick Snyder in Ann Arbor TOMORROW

A group of local activists is planning a **protest of Gov. Snyder and his policies TOMORROW**. For a summary of some of the scandals enveloping the Snyder administration, click HERE. Here are the details for the protest:

U-M has invited Michigan's Governor Rick Snyder to be a keynote speaker at an information technology conference on campus, SUMIT. Snyder is a far right politician who has imposed dictatorial Emergency

October 22 - Protest Gov. Snyder in Ann Arbor. Meet outsi the U-M Rackham Building, 915 E. Washington, Ann Arbor at 1:00 p.m.

October 24 - Western Washtenaw Dems Fall Fundraiser w journalist Jack Lessenberry, 4-6 p.m. at the Carlyle Grill at 3660 Jackson Road in Scio Township. Click HERE for tickets.

November 6 and 14 - Democratic Presidential debates. Stay tuned for details o watch parties in Washtenaw County.

November 7-8 - Ann Arbor Dems Train to Win Political Candidat & Campaign Manager Training Weekend. Click HERE to register and for more information.

November 8 - WCDP Annual Fundraising Dinne Please join us for our annual fundraising dinner to support our

Managers and Emergency Financial Managers on majority-poor-Black communities and school districts in Michigan including Flint, Benton Harbor, Pontiac, Detroit, and others. In Flint, Snyder's Emergency Manager switched the water supply from Detroit water to Flint water in April 2014, leading to a public health crisis in which city water was contaminated with up to 6 times the allowable level of lead.

Snyder's brand of "innovation" and "relentless positive action" means destroying the common good in Michigan. In addition to imposing Emergency Managers, in a lame-duck legislative session in 2012 he and his party rushed through a suite of extreme anti-choice laws, as well as union-destroying Right to Work laws.

***WHERE:** Outside Rackham Building, 915 E. Washington, Ann Arbor MI*
***WHEN:** 1:00 PM Thursday October 22*

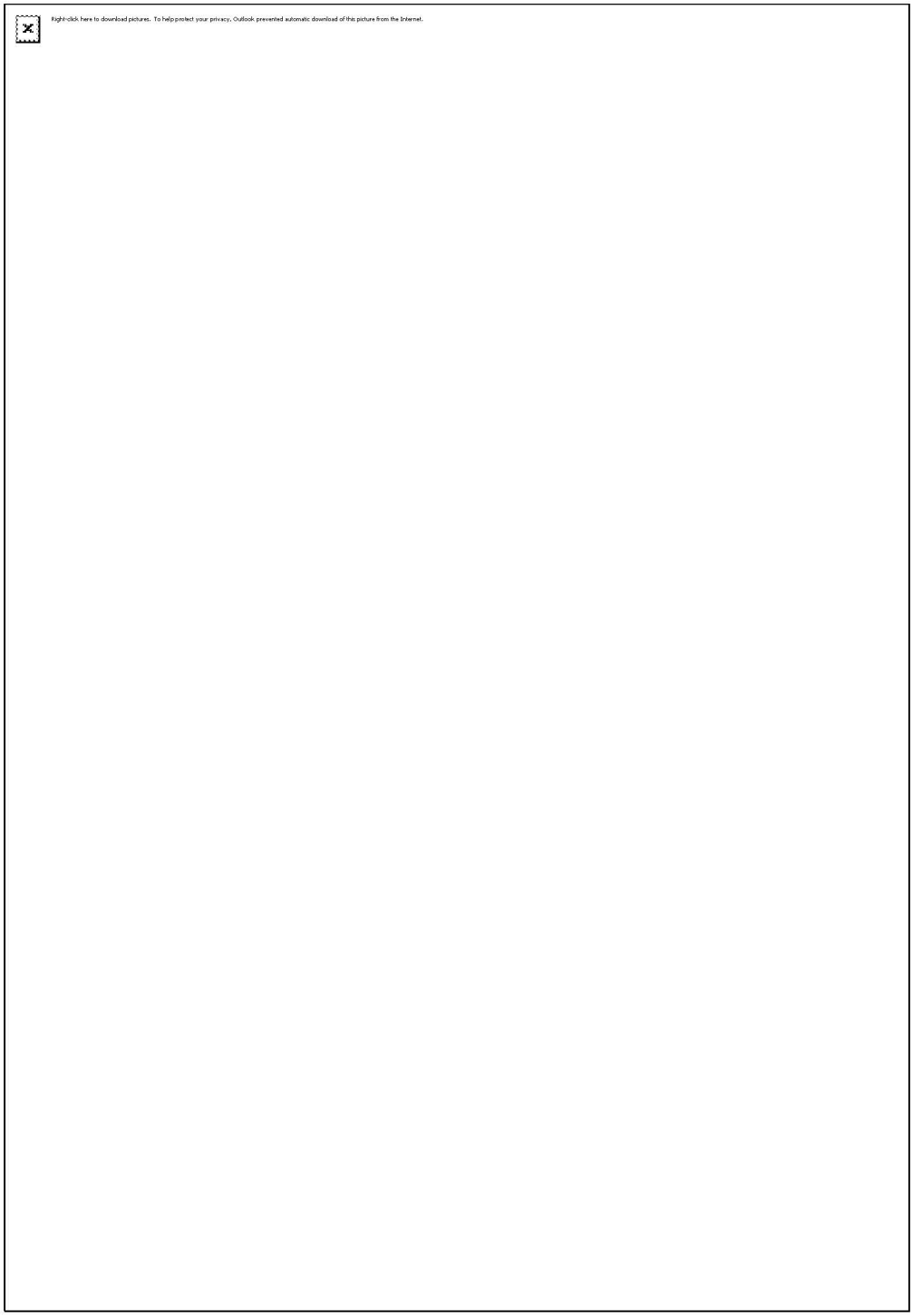
Tell U-M that Snyder and his poisonous, democracy-destroying austerity is not welcome on campus!

Free screening of the documentary *Consider the Conversation 2*

The Washtenaw Health Initiative, in conjunction with Arbor Hospice, Arbor Palliative Care, United Way of Washtenaw County, and CHRT present a **free screening of the Emmy-nominated documentary *Consider the Conversation 2***. The film illustrates the importance of advance care planning in improving a patient's experience at the end-of-life. The event takes place **Tuesday, November 17**. An Hors d'oeuvre reception begins at 5 p.m. followed by the program at 6 pm. Following the film will be a special Q&A panel with advance care planning experts. To register, click HERE.

County Democrati
Party. 5:00-8:00
p.m. at the ISEW
Local 252 Hall,
7920 Jackson Rd.
Ann Arbor, MI
48103. RSVP by
ordering your
tickets
Questions? Pleas
email Doug Scott
mdsjr2@gmail.co
or call

November 17 -
Screening of
Emmy-nominated
documentary
*Consider the
Conversation 2*.
Reception at 5
p.m., program
begins at 6 p.m.
Michigan Theater
Screening Room,
603 E. Liberty
Street, Ann Arbor
To register, click



Copyright © 2015 Washtenaw County Democratic Party, All rights reserved.
You are receiving this email because you have expressed interest and support for the Washtenaw County Democratic Party.

Our mailing address is:

Washtenaw County Democratic Party
2367 Baker Road
Dexter, MI 48130

Add us to your address book

unsubscribe from this list update subscription preferences

From: Agen, Jarrod (GOV)
Sent: Thursday, October 22, 2015 12:30 PM
To: Wurfel, Sara (GOV); Baird, Richard (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV)
Cc: Murray, David (GOV)
Subject: RE: state money for detroit water

Overall it works for me.
Although, just add some urgency/compassion.

- We want to ensure that there are no complications or interruptions in Flint residents receiving water from GWLA, so we are taking steps immediately wire the money to the city. They should have all of the state funds within a business day or two.

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 12:16 PM
To: Baird, Richard (GOV) <bairdr@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Cc: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: RE: state money for detroit water
Importance: High

So sounds like based on conf call that was just had, that for some reason the city did indeed agree to all up front.

Clearly don't want to throw city under the bus as that's certainly not going help situation, but since having them do that to us as has already started, please see below bullets. Fact based and shows state's immediate action to again help address. Work? Any concerns or changes?

- The initial agreement and understanding was for monthly payments.
- Unbeknownst to the state, the city entered into an arrangement for one upfront sum and payment.
- Now that we are aware of this and have confirmed that final arrangement, the state is taking steps to immediately wire the money to the city. They should have all of the state funds within a business day or two.

Please weigh in ASAP.

Thanks much,
SW

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 9:58 AM
To: Baird, Richard (GOV) <bairdr@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Cc: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: RE: state money for detroit water

Thanks much -- that was the last I had knew and understood too about how was supposed to work.

Just trying to either correct and nip in bud ASAP before this gets out of hand.

But also imperative that we have facts first.

p.s.
Have also talked with Treasury and SBO teams and they're looking into from their respective ends as well.

From: Baird, Richard (GOV)
Sent: Thursday, October 22, 2015 9:43 AM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Cc: Murray, David (GOV) <MurrayD1@michigan.gov>
Subject: RE: state money for detroit water

The deal was monthly payments. I will get into this as quick as I can but I am sure she has it wrong or someone in DWSD is befuddled.

From: Wurfel, Sara (GOV)
Sent: Thursday, October 22, 2015 9:35 AM
To: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Baird, Richard (GOV); Hollins, Harvey (GOV)
Cc: Murray, David (GOV)
Subject: FW: state money for detroit water
Importance: High

Please see below.

No good deed goes unpunished. This looks like may be next big issue.

I thought GLWA-DWSD was NOT going to require the entire sum all up front?

From: Ronald Fonger [mailto:RFONGER1@mlive.com]
Sent: Thursday, October 22, 2015 9:28 AM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>
Subject: state money for detroit water

Sara:
I was at a City Council meeting last night when Flint City Administrator Natasha Henderson said the state has only wired Flint $2 million of the $6 million approved by the state Legislature.
She said the city has been told it will receive an additional $2 million in January and another $2 million in April.
Henderson said she's asked that the money be sent immediately because the city was required to pay Detroit the entire $12 million upfront, before the water was reconnected, and its water and sewer fund balance has dropped significantly as a result.
Several council members also spoke about this, and Council President Josh Freeman called the payment plant "beyond ridiculous" given the city's financial position.

Is there someone who can talk to us about this?
Thanks,

Ron Fonger
MLive Media Group
Reporter

[redacted]

email rfonger1@mlive.com
address 540 S. Saginaw St. #101, Flint MI 48502

From: Agen, Jarrod (GOV)
Sent: Thursday, October 29, 2015 10:15 AM
To: Scott, Allison (GOV)
Cc: Clement, Elizabeth (GOV)
Subject: Re: Flint water

FYI -- I spoke to Gov about this.
Will update you both.

On Oct 28, 2015, at 3:07 PM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:

> Thoughts?
>
> ---
>
> **From:** Muchmore, Dennis (GOV)
> **Sent:** Thursday, October 22, 2015 9:34 AM
> **To:** Snyder, Rick (GOV) [redacted]>
> **Cc:** Scott, Allison (GOV) <scotta12@michigan.gov>
> **Subject:** Flint water
>
> Ananich wants you to add Carl Levin to the task force on Flint Water. You might want to consider that. Carl isn't going to go to every meeting, he's a pretty fair individual with a long relationship with Sikkema and Kolb, and, Ananich can hardly balk at the findings if Carl is inside the tent.

From: Agen, Jarrod (GOV)
Sent: Friday, October 30, 2015 8:54 AM
To: Brown, Jessica (GOV)
Subject: Fwd: Summit of North American Governors and Premiers Briefing

What's this all about?

Begin forwarded message:

From: "Snyder, Rick (GOV)" <[redacted]>
Date: October 30, 2015 at 12:10:51 AM EDT
To: "Bedan, Morgan (GOV)" <BedanM@michigan.gov>
Cc: "Scott, Allison (GOV)" <scotta12@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Emmitt, Beth (GOV)" <emmittb@michigan.gov>, "Dickinson, Sarah (GOV)" <DickinsonS@michigan.gov>, "Utley, Corey (GOV)" <UtleyC@michigan.gov>
Subject: Re: Summit of North American Governors and Premiers Briefing

The times for the briefing are all incorrect. Will try to rely on the calendar. Also, the receptions are incorrect re attendance. Will be going to both receptions on Friday and only one for a half hour on Sat.

Thanks
Rick

Sent from my iPad

On Oct 29, 2015, at 12:46 PM, Bedan, Morgan (GOV) <BedanM@michigan.gov> wrote:

Governor,

Attached is your briefing for the Summit of North American Governor and Premiers. The briefing contains:

[redacted]

For Review

- Flint Water – Pages 59 – 62
  - Updated Action Plan
  - Updated Action Steps

Please let us know if you have any questions.

Safe trip,
Morgan

[redacted]

From: Agen, Jarrod (GOV)
Sent: Tuesday, December 01, 2015 8:16 AM
To: Kennedy, Jordan (GOV)
Subject: Fwd: December 1 Daily Briefing

Sent from my iPhone

Begin forwarded message:

> **From:** "Snyder, Rick (GOV)" <[redacted]
> **Date:** December 1, 2015 at 7:39:15 AM EST
> **To:** "Bedan, Morgan (GOV)" <BedanM@michigan.gov>
> **Cc:** "Scott, Allison (GOV)" <scotta12@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Emmitt, Beth (GOV)" <emmittb@michigan.gov>, "Utley, Corey (GOV)" <UtleyC@michigan.gov>, "Dickinson, Sarah (GOV)" <DickinsonS@michigan.gov>
> **Subject: Re: December 1 Daily Briefing**
>
> [redacted]
>
> Sent from my iPad
>
> On Nov 30, 2015, at 4:48 PM, Bedan, Morgan (GOV) <BedanM@michigan.gov> wrote:
>
> > Governor,
> >
> > Attached is your December 1 Daily Briefing. The briefing contains:
> >
> > [redacted]
> >
> > **For Review**
> >
> > - Flint Water Update – Pages 25 – 32
> >   - Action Plan Update
> >   - Flint Drinking Water Events Timeline
> >   - Eisenhower Elementary Report – Attached Separately
> >
> > [redacted]

[redacted]

Please let us know if you have any questions.

Thank you,
Morgan

<DTMB Project Portfolio.pdf>

<Eisenhower Elementary Report.pdf>

<151201 Daily Briefing.pdf>

From: Agen, Jarrod (GOV)
Sent: Tuesday, December 08, 2015 3:48 PM
To: Brown, Jessica (GOV); Bedan, Morgan (GOV)
Cc: Biehl, Laura (GOV)
Subject: RE: 12/9 Radio Briefings

Did we get updated Flint info for him?

From: Brown, Jessica (GOV)
Sent: Tuesday, December 08, 2015 2:56 PM
To: Bedan, Morgan (GOV) <BedanM@michigan.gov>
Cc: Biehl, Laura (GOV) <BiehlL@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: 12/9 Radio Briefings

RDS – LIVE Radio interview with WTCM and Ron Jolly

Time: 7:25 – 7:35 a.m.

RDS to call: [redacted]
Call at 7:24, will go live within one minute

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:
- Road Funding package
- Energy update
- Syrian Refugee stance
- Pipeline Safety Committee

Recent articles:
Northern republicans backed road plan (Cheboygan Tribune)
http://www.cheboygannews.com/article/20151110/BLOGS/151109101
County Commissioners wait on pipeline resolution (Petoskey News)
http://www.petoskeynews.com/featured-pnr/county-commissioners-wait-on-pipeline-resolution/article_2b43079f-c4ff-57c2-bb9a-cc145c59d29c.html
Senate leaders: Michigan energy overhaul won't happen in 2015 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/senate_leaders_michigan_energy.html
Utilities stress urgency of Michigan energy overhaul as it spills into 2016 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/utilities_stress_urgency_of_mi.html
Despite Snyder's "pause," Syrian refugees continue to arrive in Michigan (Michigan Radio)
http://michiganradio.org/post/despite-snyder-s-pause-syrian-refugees-continue-arrive-michigan#stream/0

Last interview: 4/30/15 re: Importance of roads ballot proposal that went before voters on May 5.

Market: Traverse City / online http://wtcmradio.com/

Contact: Studio line: [redacted] Back-up: [redacted]

RDS – LIVE Radio interview with WSJM and Pat Moody

Time: 7:40 – 7:50 a.m.

RDS to call: [redacted]
Call right at 7:40, live when phone is answered. Stay on line until phone is picked up as Pat is the only one in studio.

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- Job creation/skilled trades in 2015
- Education accomplishments and look-ahead
- Road Funding package
- Energy update
- Syrian Refugee stance

Recent articles:
Road funding deal to be signed (WSJM)
http://www.wsjm.com/2015/11/10/road-funding-deal-to-be-signed/
Gov. Snyder wants bipartisan group to address (WSJM)
http://www.wsjm.com/2015/12/02/governor-snyder-wants-bipartisan-group-to-address-concerns-over-refugee-screening/
Nesbitt's Energy committee trying to pass energy reform
http://www.wsjm.com/2015/11/05/nesbitts-energy-committee-trying-to-pass-energy-reform-bills-today/
Oil spill, high waves: A Great Lakes Disaster Scenario (Detroit Free Press)
http://www.freep.com/story/news/local/michigan/2015/12/05/enbridge-pipeline-straits-mackinac-oil-spill-waves/76728434/
Gov. Rick Snyder launches statewide tour to promote skilled trades (MLive)
http://www.mlive.com/news/grand-rapids/index.ssf/2015/11/governor_snyder_launches_state.html
County Commissioners wait on pipeline resolution (Petoskey News)
http://www.petoskeynews.com/featured-pnr/county-commissioners-wait-on-pipeline-resolution/article_2b43079f-c4ff-57c2-bb9a-cc145c59d29c.html
Senate leaders: Michigan energy overhaul won't happen in 2015 (MLive)
http://www.mlive.com/lansing-news/index.ssf/2015/12/senate_leaders_michigan_energy.html

Last interview: 3/20/15 re: Importance of roads ballot proposal that went before voters on May 5.

Market: St. Joe/Benton Harbor- http://www.wsjm.com/

Contact: Studio line: [redacted] Back-up (Pat's cell): [redacted]

RDS – TAPED Radio interview with WFNT and Jason Cooper

Time: 7:55 – 8:05 a.m.

RDS to call: [redacted]
Call right at 7:55, interview is taped.

Purpose: Year-end accomplishments interview. Covers 2015 highlights and 2016 look-ahead.

Possible Topics:

- Road Funding package
- Flint's emergency manager exit
- Flint water
- Syrian refugee talks
- Concealed carry bill re: prison guards and parole officers
- Education accomplishments and look-ahead (if time allows)

Recent articles:

Flint schools slash debt by $11M, but state to review finances under new law (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_school_district_slashes.html
Flint city attorney resigns; new mayor says she expects to name replacement (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/peter_bade_flint_city_attorney.html
Flint Mayor Karen Waver unveils 100-day plan, including audit of city funds (MLive)
http://www.mlive.com/news/flint/index.ssf/2015/12/flint_mayor_karen_weavers_100-.html
Push to recall Snyder over Flint water crisis stalls (Detroit Free Press)
http://www.freep.com/story/news/local/michigan/2015/12/03/elections-board-rejects-latest-snyder-recall-petition/76712410/
Give Flint $50M to replace lead water pipes (Detroit Free Press)
http://www.freep.com/story/news/columnists/rochelle-riley/2015/11/12/flint-water-sheldon-neeley-michigan-legislature/75610846/

Last interview: 3/10/15 re: Importance of roads ballot proposal that went before voters on May 5.

Notes: Jason Cooper<http://wfnt.com/author/jcooper/> WFNT's News Director and host of Conversations with Jason Cooper. Interview will air during Jason's show from 11-noon.

Market: Flint and Saginaw Metro and online at http://wfnt.com/

Contact: Studio line: [redacted]; Back-up: [redacted]

Jessica M. Brown
Communications Representative
Executive Office of Michigan Governor Rick Snyder
O: 517-335-6397
M: [redacted]
BrownJ53@michigan.gov

From: Agen, Jarrod (GOV)
Sent: Tuesday, December 08, 2015 3:50 PM
To: Biehl, Laura (GOV); Brown, Jessica (GOV)
Subject: FW: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: 2015-12-07 Flint Drinking Water Action Plan Update.pdf; What is a Part Per Billion.pdf

Importance: High

This was last night's update

From: Wyant, Dan (DEQ)
Sent: Monday, December 07, 2015 3:34 PM
To: Scott, Allison (GOV) <scotta12@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Emmitt, Beth (GOV) <emmittb@michigan.gov>; Bedan, Morgan (GOV) <BedanM@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>
Cc: Wyant, Dan (DEQ) <WyantD@michigan.gov>; Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>; Edgerton, Shelly (LARA) <EdgertonS1@michigan.gov>; Dykema, Linda D. (DHHS) <DykemaL@michigan.gov>
Subject: 2015-12-07 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

Dear Governor's Office:

Please provide the following to the Governor as a part of his daily briefing packet. If you have any questions, please let us know.

- Flint Drinking Water Action Plan Update
- Document on What is a Part Per Billion.

As a reminder we will prepare these reports to you weekly, every Monday afternoon, for the previous week's actions. I have also added Richard Baird to this weekly email.

Thank you.

Dan Wyant
Director

Flint Drinking Water Action Plan Update

FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGE

Key Actions:

On December 3, 2015, DHHS released blood lead level testing data. The data covered the time frame between January 1, 2010, and November 13, 2015. The data was broken down by population set and by demographic. The population sets included the state of Michigan as a whole, Genesee County as a whole, and the city of Flint ZIP Codes 48501 to 48507. The demographic sets broke the populations down into the age groups of: "Children younger than 6 Years Old," "Children 6 to 17 Years Old," "Adults 18 Years and Older," and "Total Number of People of All Ages Tested."

On December 3, 2015, the DEQ released the lead in drinking water data and final report for Eisenhower Elementary School. The findings in the report were very similar in nature to those found in the report for Freeman Elementary School. There were a number of fixtures and plumbing immediately adjacent to fixtures that were imparting lead into the water. The report recommends replacement of these fixtures and related plumbing.

On December 4 and 5, 2015, staff from the DEQ and DLARA conducted a plumbing evaluation and subsequent sampling of the fixtures used for drinking water consumption at Potter Elementary School in Flint. There were a total number of 288 samples taken at 57 different locations throughout the school.

Positions:

There are no new positions to report since last week.

Concerns:

There are no new concerns to report since last week.

Significant Events:

On November 30, 2015, Director Dan Wyant and George Krisztian met with water quality expert Dr. Joan Rose of Michigan State University. The purpose of the meeting was to discuss the situation in Flint and to seek guidance on approaches for addressing the issue. Dr. Rose expressed that she felt there were three different fronts necessary to address the issue. These were to create a "Trust Plan," a "Communications Plan," and a plan to "Get the lead out." Dr. Rose provided several different examples of communities that had undergone similar challenges and what approaches worked and what approaches did not.

On December 3, 2015, representatives from the Governor's office, DEQ, and Office of Urban Initiatives met with Flint City Mayor Karen Weaver and members of her transition team. The purpose of the meeting was primarily introductory in nature, and the conversations were at a high level discussing the needs of the city as well as how communications with the residents of the city could be improved. There was also discussion of the lead testing results, both for home owners and in the schools. There was particular interest in the sampling protocol that was used to obtain samples in the schools. Overall, the conversation was very positive, with everyone agreeing that a coordinated effort was necessary to be able to effectively address the lead issue.

On December 3, 2015, Director Dan Wyant was interviewed by Lori Jane Gliha for a segment on America Tonight. The questions mainly focused on what had happened in the past and were tough. The responses echoed the message that the DEQ empathizes with the residents of Flint; we are committed to bringing about a resolution; we have a plan; we are moving forward; and we recognize that we need to rebuild trust in the community.

On December 4, 2015, representatives of the DEQ (Jim Sygo, Karen Tommasulo, and George Krisztian) met with Flint Mayor Karen Weaver and other city officials for the weekly coordination meeting. Calling into the meeting were representatives of DHHS and DLARA. The blood lead data that DHHS released the previous day was discussed, and Dr. Eden Wells provided detailed comment on the data. There was also detailed discussion regarding the Revolving Loan Fund and how it might be utilized to help address the issue of lead service line replacement.

On December 4, 2015, representatives of the DEQ (Jim Sygo, Karen Tommasulo, and George Krisztian) met with Flint Community Schools Superintendent Bilal Tawwab. The main topic of discussion was a review of the lead in drinking water data obtained to date. Superintendent Tawwab was informed that the schools, in general, were all following a similar pattern in that the sources of lead appear to be coming primarily from fixtures and the adjacent plumbing. Superintendent Tawwab indicated that his office has already made the decision to follow all recommendations in the reports. It was also agreed that a monthly meeting would be helpful to ensure that the process kept moving forward. In addition, there was discussion about a document that the DEQ would create that would explain what constituted a part per billion or ppb. A draft document without graphics was given to Superintendent Tawwab, and he indicated that the final version would be a very helpful aid to parents and students.

Changes from Previous Report:

- Draft sampling instructions were developed for lead and copper compliance sampling, incorporating comments by the U.S. Environmental Protection Agency (EPA). The revised document is being sent back to the EPA for final comment.

- DEQ staff met with DHHS staff to assist with development of a phosphate fact sheet. DHHS is the lead on this and will be submitting a revised version to the DEQ for final comment. This document is being developed to answer home owner questions regarding the safety of the addition of phosphate to the water received by the city of Flint from Detroit.

- Staff from the DEQ provided a "Standby Operations" letter to the city of Flint. The purpose of the letter is to define what practices are to be utilized in the event of an emergency.

- Staff from the DEQ followed up with the city of Flint on the status of the installation of corrosion control treatment. Pumps were installed on November 30, 2015. It is anticipated that the startup of the system will begin during the week of December 7, 2015.

Other Item:

Attached is the draft document, "What is a Part per Billion."

Prepared by: George Krisztian, Flint Action Plan Coordinator
Laboratory Director
Department of Environmental Quality
Telephone: 517-284-6719
[redacted]
December 7, 2015

What is a Part per Billion?

1 dollar in a stack of 1 dollar bills 62 miles high

1 dime in a stack of dimes 800 miles high

1 penny in 10 million dollars

1 second in 32 years

1 foot of a trip to the moon

1 inch of a trip from the North Pole to the South Pole

1 apple in over 10,000 truckloads

1 drop of water in 850 aquariums 20 gallons in size

1 single pitch from every game, of every major league baseball team, played over the course of 700 seasons

Subject:	RDS/GT/VB - KWA & DWSD (Water) Meeting
Location:	Governor's SE MI Office
Start:	Fri 4/19/2013 3:00 PM
End:	Fri 4/19/2013 4:30 PM
Recurrence:	(none)
Meeting Status:	Accepted
Organizer:	GovCalendar
Required Attendees:	Hichez, Amy (Treasury); Muchmore, Dennis (GOV); Wisniewski, Wendy (GOV); Rustem, William (GOV); Brader, Valerie (GOV); Tedder, Greg (GOV)
Optional Attendees:	Clayton, Stacie (GOV); Thelen, Mary Beth (DEQ)

[redacted] – SClayton to dial in as Host

Attendees:
RDS/GT in person, Val Brader by phone
Mr. Orr by phone
Harvey Hollins by phone or in person
Attending from DWSD: Jim Fausone, Sue McCormick (Director), Nikki Bateson (CFO)
Attending from Flint: Ed Kurtz and Flint Mayor Dayne Walling
Attending from Treasury: Andy Dillon, Amy Hichez
Attending from DEQ: Dan Wyant
George Karmo from Tucker Young Jackson Tull Inc

Subject:	Internal Flint Water Meeting
Location:	Governor's Conference Room, 2nd Romney
Start:	Wed 1/28/2015 10:00 AM
End:	Wed 1/28/2015 11:00 AM
Recurrence:	(none)
Meeting Status:	Accepted
Organizer:	Posthumus, Dick (GOV)
Required Attendees:	Clement, Elizabeth (GOV); Muchmore, Dennis (GOV); Walsh, John (GOV); Wisniewski, Wendy (GOV); Hall, Jean (GOV); Pleyte, Beth (Treasury); Saxton, Thomas (Treasury); Clayton, Stacie (GOV); Hollins, Harvey (GOV); Murray, David (GOV)

Attending:
Dick Posthumus
Dennis Muchmore
John Walsh
Beth Clement
Tom Saxton
Harvey Hollins
Dave Murray

Subject: DM/EC/HH/Wayne Workman/ Tom Saxton/ Ashley Gelisse RE: Flint Pastors Warn They'll Go To Court To Get City Off Flint River Water
Location: Governor's Conference Room, 2nd Floor Romney

Start: Tue 4/14/2015 11:00 AM
End: Tue 4/14/2015 12:00 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Muchmore, Dennis (GOV)
Required Attendees: Workman, Wayne (TREASURY); Saxton, Thomas (Treasury); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Gelisse, Ashley (TREASURY); Cousineau, Sara (Treasury); Pleyte, Beth (Treasury); Clayton, Stacie (GOV); Dempkowski, Angela (Treasury)

Attendees:
EC/DM/HH
Wayne Workman
Tom Saxton
Ashley Gelisse

From: Gelisse, Ashley (TREASURY)
Sent: Thursday, April 09, 2015 2:58 PM
To: Workman, Wayne (TREASURY); Muchmore, Dennis (GOV)
Cc: Saxton, Thomas (Treasury); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Cousineau, Sara (Treasury); Pleyte, Beth (Treasury); Wisniewski, Wendy (GOV); Stoken, Laura (GOV)
Subject: RE: Flint Pastors Warn They'll Go To Court To Get City Off Flint River Water

Wayne and I discussed this further. I think it would be good if this group could meet early next week to have another discussion on Flint.

The purpose of the meeting would be to discuss and finalize Flint RTAB members, and also to discuss the potential ramifications of Rep. Kildee's recommendation that the state forgive Flint's $22M water loan: http://www.mlive.com/news/flint/index.ssf/2015/04/kildee_asks_feds_about_forgive.html

If you agree, perhaps Wendy (or Laura, in her absence) and Beth can help us find some time. Thanks much.

Ashley

From: Workman, Wayne (TREASURY)
Sent: Wednesday, April 08, 2015 6:40 PM
To: Muchmore, Dennis (GOV)
Cc: Saxton, Thomas (Treasury); Stanton, Terry A. (Treasury); Gelisse, Ashley (TREASURY); Clement, Elizabeth (GOV);

Hollins, Harvey (GOV)
Subject: Re: Flint Pastors Warn They'll Go To Court To Get City Off Flint River Water

It is timely to figure that out, because what they is not affordable and they are ignoring the new improvements announced today.

Sent from my iPad

On Apr 8, 2015, at 5:27 PM, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov> wrote:

Why not, we haven't anything else to do except spend our time chasing our tail. This issue isn't going to go away until we do some serious comms work in the city.

From: Workman, Wayne (TREASURY)
Sent: Wednesday, April 08, 2015 5:13 PM
To: Saxton, Thomas (Treasury); Stanton, Terry A. (Treasury); Gelisse, Ashley (TREASURY); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV)
Subject: Fwd: Flint Pastors Warn They'll Go To Court To Get City Off Flint River Water

FYI

Sent from my iPhone

Begin forwarded message:

From: "Koryzno, Edward (Treasury)" <KoryznoE@michigan.gov>
Date: April 8, 2015 at 4:35:47 PM EDT
To: "Workman, Wayne (TREASURY)" <WorkmanW@michigan.gov>, "Gelisse, Ashley (TREASURY)" <GelisseA@michigan.gov>
Subject: FW: Flint Pastors Warn They'll Go To Court To Get City Off Flint River Water

FYI

Edward B. Koryzno, Jr. | Director - Bureau of Local Government Services
State of Michigan | 430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
(517) 373-4415 | (517) 373-0633 (fax)
KoryznoE@michigan.gov

Think Green! Don't print this e-mail unless you need to.

CONFIDENTIALITY NOTICE: This e-mail, and any attachments, is for the sole use of the intended recipient(s) and may contain information that is confidential and protected from disclosure under the law. Any unauthorized review, use, disclosure, or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail, and delete/destroy all copies of the original message and attachments.
Thank you

From: Widigan, Robert (TREASURY)
Sent: Wednesday, April 08, 2015 4:12 PM
To: Koryzno, Edward (Treasury); Byrne, Randall (Treasury); Cline, Richard (Treasury); Vandegrift, Drew (TREASURY)
Subject: Flint Pastors Warn They'll Go To Court To Get City Off Flint River Water
Importance: Low

FYI – http://videos.mlive.com/mlive/2015/04/flint_pastors_warn_theyll_go_t.html

Robert Widigan | Office of Fiscal Responsibility
State of Michigan | Department of Treasury
430 W. Allegan Street | Lansing, MI 48922
Office (517) 335-2130 | [redacted]
WidiganR@michigan.gov

Subject: RDS – Urban Initiatives Update
Location: Governor's SE MI Office

Start: Mon 9/21/2015 2:00 PM
End: Mon 9/21/2015 2:30 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: GovCalendar
Required Attendees: Hollins, Harvey (GOV); Clayton, Stacie (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Wisniewski, Wendy (GOV)
Optional Attendees: Agen, Jarrod (GOV)

Agenda:

[redacted]

Subject:	RDS/DM/BM/NL/DW/Maggie Pallone/Karen Tommasulo/Col. Etue & Lt. Col. Sands/HH/DMurray/TSaxton - Meeting Re: Flint Water
Location:	Governor's Conference Room, Romney
Start:	Tue 9/29/2015 1:00 PM
End:	Tue 9/29/2015 1:30 PM
Recurrence:	(none)
Meeting Status:	Accepted
Organizer:	GovCalendar
Required Attendees:	Mcbride, Bill (GOV); Wisniewski, Wendy (GOV); Muchmore, Dennis (GOV); Lyon, Nick (DCH); Grijalva, Nancy (DCH); Wyant, Dan (DEQ); Thelen, Mary Beth (DEQ); Etue, Kriste (MSP); Klotz, Josephine (MSP); Hollins, Harvey (GOV); Clayton, Stacie (GOV); Hansen, Rachel (GOV); Murray, David (GOV); Adamczyk, Lynne (GOV); Sands, Thomas (MSP)
Optional Attendees:	Clement, Elizabeth (GOV); Agen, Jarrod (GOV)

[redacted]

HH by Phone

[redacted] – RH to dial in as host

Subject: FW: RDS/GT/VB - KWA & DWSD (Water) Meeting
Location: Governor's SE MI Office

Start: Fri 4/19/2013 2:00 PM
End: Fri 4/19/2013 3:30 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: GovCalendar

-----Original Appointment-----
From: Emmitt, Beth (GOV) **On Behalf Of** GovCalendar
Sent: Thursday, April 18, 2013 1:42 PM
To: GovCalendar; Hichez, Amy (Treasury); Muchmore, Dennis (GOV); Wisniewski, Wendy (GOV); Rustem, William (GOV); Brader, Valerie (GOV); Tedder, Greg (GOV)
Cc: Clayton, Stacie (GOV); Thelen, Mary Beth (DEQ)
Subject: RDS/GT/VB - KWA & DWSD (Water) Meeting
When: Friday, April 19, 2013 3:00 PM-4:30 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Governor's SE MI Office

[redacted]

[redacted] – SClayton to dial in as Host

Attendees:
RDS/GT in person, Val Brader by phone
Mr. Orr by phone
Harvey Hollins by phone or in person
Attending from DWSD: Jim Fausone, Sue McComerick (Director), Nikki Bateson (CFO) Attending from Flint: Ed Kurtz (he is sending his attendee list over shortly)
Attending from Treasury: Andy Dillon

Subject: RDS/GT/VB - KWA & DWSD (Water) Meeting
Location: Governor's SE MI Office

Start: Fri 4/19/2013 5:30 PM
End: Fri 4/19/2013 7:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: GOVSecurity2

[redacted]

[redacted] – SClayton to dial in as Host

Attendees:

RDS/GT in person, Val Brader by phone

Mr. Orr by phone

Harvey Hollins by phone or in person

Attending from DWSD: Jim Fausone, Sue McCormick (Director), Nikki Bateson (CFO)

Attending from Flint: Ed Kurtz and Flint Mayor Dayne Walling

Attending from Treasury: Andy Dillon, Amy Hichez

Attending from DEQ: Dan Wyant

George Karmo from Tucker Young Jackson Tull Inc

Subject: RDS/GT/VB - KWA & DWSD (Water) Meeting
Location: Governor's SE MI Office

Start: Fri 4/19/2013 2:00 PM
End: Fri 4/19/2013 3:30 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: GovCalendar
Required Attendees: Hichez, Amy (Treasury); Muchmore, Dennis (GOV); Wisniewski, Wendy (GOV); Rustem, William (GOV); Brader, Valerie (GOV); Tedder, Greg (GOV)
Optional Attendees: Clayton, Stacie (GOV); Thelen, Mary Beth (DEQ)

[redacted] – SClayton to dial in as Host

Attendees:
RDS/GT in person, Val Brader by phone
Mr. Orr by phone
Harvey Hollins by phone or in person
Attending from DWSD: Jim Fausone, Sue McCormick (Director), Nikki Bateson (CFO)
Attending from Flint: Ed Kurtz and Flint Mayor Dayne Walling
Attending from Treasury: Andy Dillon, Amy Hichez
Attending from DEQ: Dan Wyant
George Karmo from Tucker Young Jackson Tull Inc

From: Gelisse, Ashley (TREASURY)
Sent: Monday, February 02, 2015 3:08 PM
To: Posthumus, Dick (GOV); Wurfel, Sara (GOV); Clement, Elizabeth (GOV); Muchmore, Dennis (GOV); Allard, Claire (GOV); Hollins, Harvey (GOV); Clayton, Stacie (GOV)
Cc: Workman, Wayne (TREASURY); Stanton, Terry A. (Treasury)
Subject: Independent Water Analysis - Flint
Attachments: Independent Water Analysis.PDF

FYI only – a helpful article about the water situation in Flint, offers a good independent assessment. Thanks.

Ashley Gelisse
Senior Policy Advisor to State Treasurer Kevin Clinton
Richard H. Austin Building
430 West Allegan Street
Lansing, MI 48922
Direct: 517-241-2474
[redacted]
gelissea@michigan.gov

Waste Water Flow Device
Hand Held Industrial Meas.urement With Clamp-On Sensors & Readout.

ABC12 Investigates: What's in your water?

Posted: Jan 29, 2015 3:38 PM EST
Updated: Jan 29, 2015 11:54 PM EST

By Larry Elliott CONNECT

FLINT (WJRT) - (01/29/15) - The results are in and we now have a completely independent look at what's in Flint's water supply.

For months, since Flint switched from a Detroit water supply to the Flint River as it's water source, Flint water customers have complained of smelly, cloudy, bad tasting water and blame it for a variety of health problems.

Complaints exploded earlier this month when Flint notified its water customers that a group of chemicals known as TTHM were at much higher average levels than allowed by law.

With so many questions and distrust of the answers, ABC12's Larry Elliott investigates - What's in your Water?

It seems no matter who you ask in the Flint area, there's an opinion about the city's water. Most of the issues center on the quality of the water and whether it's safe to drink.

"Right now it smells," said Flint resident Lee Miller. "We're getting water out of our own back yard now and it's costing me double what it was coming from Detroit."

"It has a funny taste to it," said Flint resident Milton Alexander.

"It could be dangerous to us, actually I don't know how dangerous it is," said Flint resident Shanika Sanders.

"I'm no cheerleader for the water department here, I think we've got a lot of issues to work on," Ken VanWagoner, of Good Beans Cafe - Flint.

Most of the issues center on the quality of the water and whether it's safe to drink, but concern over its safety reached a new high earlier this month when the city was required by the state Department of Environmental Quality to notify residents that the water had exceeded the allowable limit of a group of chemicals known as TTHM.

TTHM is in most municipal water systems and is thought by some to be a possible carcinogen in long term exposure.

It's a byproduct of chlorination, which is commonly used to help purify water. Last August, as Flint's water treatment plant worked to purify the water it was drawing from the Flint River, levels of TTHM grew to well over the EPA allowed maximum.

August test results provided by the DEQ to ABC12 show all of the eight testing sites around Flint had TTHM levels well above the legal limit.

The lowest level among the eight sites was 40 percent above the legal limit. The highest was 145 percent

more than allowed.

DEQ rules only require the city to report higher than allowed levels to the public once a year, and only if the average of quarterly tests is higher than the legal limit.

That notification went out to residents on Jan. 5. Since then, many residents have refused to believe assurances from the DEQ and the city that the water is now safe to drink.

So, we set out to do complete and independent testing to find out for ourselves exactly what's in your water.

It took a bit of research, but we finally found Water Tech, in Howell, a testing lab with absolutely no ties to Flint, just to make sure there are no questions about the test results.

After having Water Tech train ABC12's Larry Elliott on the proper methods for collecting water samples, we set out last week to randomly test five sites in Flint.

1. Downtown.

"I'm excited to see this done because this is an independent way to find out that everything's just fine," VanWagoner said.

2. The north side.

"We'd like to do kind of a whole battery of tests of your water. Oh yeah," Alexander said.

3. The west side.

"It could be dangerous to us. How about if we help you find out what's in it right now?" Sanders said.

4. The east side.

"I'm hoping for a good test and put my family at ease," Miller said.

5. Our main studio, on the south side.

We also wanted to compare whatever we're to find with Detroit supplied water, so we took a sample from the Burton water system.

Since next year Flint will connect to the new KWA pipeline, getting its water from Lake Huron, we took a comparison sample from the Saginaw-Midland water system, which currently uses Lake Huron water.

We tested all the sites for levels of TTHM. We also tested how much residual chlorine was in the Flint and Burton water supply and more importantly, we tested at two of our Flint sites for a number of other hazardous chemicals that could cause skin or other health problems.

Tests for those other chemicals are not required for public water systems, but we decided to run those tests anyway.

Here's what our independent testing shows:

All sites tested, including the Saginaw-Midland water system and the Burton system, using Detroit water, contained TTHM - but all of them were well below the EPA allowed maximum.

Saginaw-Midland water had less than a third of the maximum TTHM allowed, the Burton system had only about 25 percent of the maximum and the highest level found of all of our Flint tests showed just over 65 percent of what's allowed, all below EPA limits.

A similar byproduct of chlorination, haloacetic acids, was also well below EPA maximums in Flint's water.

We tested Flint's north and east water samples for many other hazardous chemicals that a doctor told us could cause skin or other health problems, and on both tests, not a single one of those chemicals was detected.

Since most often any smell to the water would be caused by levels of total residual chlorine, we tested that too, in both our Flint and Burton samples.

The legal limit is 4 milligrams per liter. The average of our Flint samples shows a level of about a half milligram per liter. Our test in Burton actually shows 22 percent more residual chlorine than Flint.

Our Flint sample also showed no Coliform bacteria.

We asked Chris McCarthy, of Water Tech, a few questions.

Q: How would you describe these test results?

A: "Well, for the samples received, the tests we performed, everything is within EPA guidelines for safe drinking water."

Q: Is there anything in these results that raises a red flag for you?

A: "For water quality or water safety, No."

We then asked residents if these results change their opinion of what they'll do with their water now.

"To be honest, no," Alexander said.

"It will make me feel a lot more comfortable about bathing and brushing my teeth in it, but I'm still not going to drink it and I'm not gonna give it to my kids or my dog," Sanders said.

"It makes me feel a lot more safer, a lot more comfortable knowing that it's safe to drink now, you know. I'll tell you a load lifted off my shoulders. When the kids take baths, when my wife takes a shower, you know, I know now we're safe," Miller said.

So what about those who've stood before Flint City Council with jugs of discolored water?

While Genesee County Drain Commissioner Jeff Wright points out he has no jurisdiction over Flint's water system, he says in general, discolored water like this is nearly always the result of water main breaks or repairs, and Flint has more than its share because of its aging system.

Wright also says the KWA pipeline won't change that. It will take better management of repairs and money - lots of it - to replace Flint's aging water mains.

Unfortunately for the city of Flint, those very high levels of TTHM recorded last August in Flint water tests are still required by the DEQ to be included in the next report calculating average TTHM levels.

The next test will be done next week, and city Public Works Director Howard Croft tells ABC12, because of the high levels last August, the city will again be found in violation and will be required by the DEQ to send out another TTHM notice of violation to all Flint water customers in early March, even if all new tests show levels under the legal limit.

To view the TTHM testing results from the Michigan DEQ, click HERE.

To view the results of ABC12's water tests, click on the location you'd like to see results for below:

Flint Center

Flint North

Flint East

Flint South

Flint West

Burton

Saginaw-Midland

To view the Michigan DEQ results for South Flint, click HERE.

From: Hollins, Harvey (GOV)
Sent: Wednesday, February 11, 2015 9:12 AM
To: Clayton, Stacie (GOV)
Subject: FW: PRESS RELEASE: Water Consultant Announcement

From: Muchmore, Dennis (GOV)
Sent: Wednesday, February 11, 2015 9:11:45 AM (UTC-05:00) Eastern Time (US & Canada)
To: Saxton, Thomas (Treasury); Hollins, Harvey (GOV)
Cc: Workman, Wayne (TREASURY); Stanton, Terry A. (Treasury); Clement, Elizabeth (GOV)
Subject: RE: PRESS RELEASE: Water Consultant Announcement

I need something more substantive that we can get to the community about the rates and costs today.

From: Saxton, Thomas (Treasury)
Sent: Wednesday, February 11, 2015 6:09 AM
To: Muchmore, Dennis (GOV); Hollins, Harvey (GOV)
Cc: Workman, Wayne (TREASURY); Stanton, Terry A. (Treasury); Clement, Elizabeth (GOV)
Subject: Fwd: PRESS RELEASE: Water Consultant Announcement

see the press release below re the water consultant. In the conversation Wayne & I had with Jerry late yesterday they are apparently planning a public forum mtg of some type next week to share preliminary results of the consultant's work. Veolia has already been doing some work on this.

Begin forwarded message:

> **From:** Gerald Ambrose <gambrose@cityofflint.com>
> **Date:** February 10, 2015 at 9:13:45 PM EST
> **To:** "Thomas Saxton (Treasury)" <SaxtonT@michigan.gov>, "Wayne Workman (TREASURY)" <workmanw@michigan.gov>
> **Subject: Fwd: PRESS RELEASE: Water Consultant Announcement**
>
> Just in case you did not see this. Had a roundtable with media and Veolia.
>
> ---------- Forwarded message ----------
> From: "Jason Lorenz" <jlorenz@cityofflint.com>
> Date: Feb 10, 2015 2:56 PM
> Subject: PRESS RELEASE: Water Consultant Announcement
> To:
> Cc:
>
> **For Immediate Release**
>
> **Flint Hires International Urban Water Experts of Veolia North America to Assess City's Water Issues**

Flint, Michigan – February 10, 2015 – The City of Flint has retained a team of urban water experts from Veolia North America to conduct an analysis of the city's water system. Veolia, which is the world's largest water services and technology company, will assess how Flint's water is tested and distributed, including reviewing water treatment processes and operations, laboratory testing and analysis, and engineering reports that detail the city's treatment and distribution systems.

"We understand the frustration and urgency in Flint," said David Gadis, vice president of Veolia North America's Municipal & Commercial Business. "We are honored to support your community with our technical expertise so that together we can ensure water quality for the people of the city of Flint."

Veolia anticipates its analysis to take less than two weeks, at which time they will present findings to City officials, including the Mayor, City Council and the Emergency Manager. Once the findings are presented, city officials will determine how to move forward.

"Addressing the City's water challenges are the top priority right now and it is important to bring in an independent, highly qualified team to work with us to address the safety and quality issues," said Mayor Dayne Walling.

"Until we have completed our analysis, we cannot say for certain how long it will take to provide solutions to Flint's current water situation," said Gadis. "We have extensive experience handling challenging river water sources, reducing leaks and contaminants and in managing discolored water."

"Veolia worked diligently to respond to our Request For Proposal in a thorough, professional way and demonstrated the ability to immediately support us as we ensure safe, clean water for our residents," said Emergency Manager Jerry Ambrose.

The Veolia team hit the ground running Tuesday morning, meeting with water officials to provide an overview of the work to be conducted. "We look forward to helping Flint's team find ways to address and improve the city's drinking water operation," Gadis said.

The company designs and provides water, waste and energy management solutions to communities and industries across the country, including providing water and wastewater services to 530 communities in North America. More information is available at www.veolianorthamerica.com.

–END–

-Jason Lorenz
Public Information Officer
City of Flint
(810) 237-2039
jlorenz@cityofflint.com

From: Hollins, Harvey (GOV)
Sent: Monday, February 16, 2015 12:42 PM
To: Clayton, Stacie (GOV)
Subject: FW: Flint Water Bills
Attachments: Water Forum - Final.ppt; WATER RATES deposits.doc

---

From: Muchmore, Dennis (GOV)
Sent: Monday, February 16, 2015 12:41:53 PM (UTC-05:00) Eastern Time (US & Canada)
To: Hollins, Harvey (GOV)
Subject: FW: Flint Water Bills

This is an old note which summarizes some of the early issues with the system and why they wanted to go to the KWA. Thought you might be interested. Did we get any info for the ministers about how the Detroit bill extensions and cut offs are working?

From: Stibitz, Brom (Treasury)
Sent: Monday, March 04, 2013 4:00 PM
To: Muchmore, Dennis (GOV)
Cc: Dillon, Andy (Treasury)
Subject: Flint Water Bills

Dennis,

There is some information attached on the Flint water issue you asked us about. I summarize a few of the key points:

- The water system has been running at deficits for years. When the previous EFM left the City in 2004, the water system has a reserve of approximately $60 million. When Mike Brown was appointed, this had turned into a $20 million deficit due to years of not passing along to consumers the rate increases of over 10% hitting the system from DWSD. Slides 5 & 6 of the attached power point show this pretty dramatically.
- Substantial increases over the past few years are an attempt to reflect the actual costs of running the system.
- Another concern raised by DHS was the increase in the deposit for rental properties. This was necessary because renters paid the previous $100 deposit, then racked up water bills in excess of this amount and walked away. Of the affidavits currently out there, 82% are past due. I would also note that this is not mandatory, it is only required if a landlord is not willing to put the water bill in their name.
- The bottom line is that they realize it is an issue, but the General Fund doesn't have the money to run general City operations, much less subsidize water rates.

The two page word document (attached) provided by the EFM gives you a good overview of what is going on. They believe that a switch to KWA is part of the solution for high water rates in the City.

Brom

City of Flint

Water Forum

5/31/2012

City Of Flint Water Forum

CONTENTS

Water History Facts 3

Frequently Asked Questions 4

Budget Allocation and Fund Expenses 5

Asset / Revenue Charts 6

Recent Timeline of Water and Sewer Funds 7

City of Flint - Water and Sewer System Additional Asset / Revenue Data 8

Calculation of Water and Sewer Rates for FY13 Budget 9

Example Water Bill 10

Turn-off Policy 11

Preliminary Options for Future City of Flint Water Sources 12

Improvements for City of Flint Water System 13

City Of Flint Water History Facts

Current Treatment Plant was put into service in 1954.

Current 72" main pipeline was completed in 1970.

Flint signed a 30 year contract with Detroit Water and Sewer Department in the mid 1960's.

The contract with DWSD has expired and we are currently operating on a yearly extension.

In 2006 Flint completed a $48,000,000 upgrade of the existing Water Plant (required by the MDEQ & for backup only).

Flint's Water & Sewer System is approximately a $300,000,000 Enterprise.

Flint's Water & Sewer System is designed to deliver water to over 200,000 people with over 1,500 miles of infrastructure.

Flint's most recent census count shows a population of approximately 102,000 in 2010.

Flint's census population in 2000 was approximately 124,000.

The water system had over 45,000 customers in June of 1999.

The water system had just over 36,000 customers by June 2011.

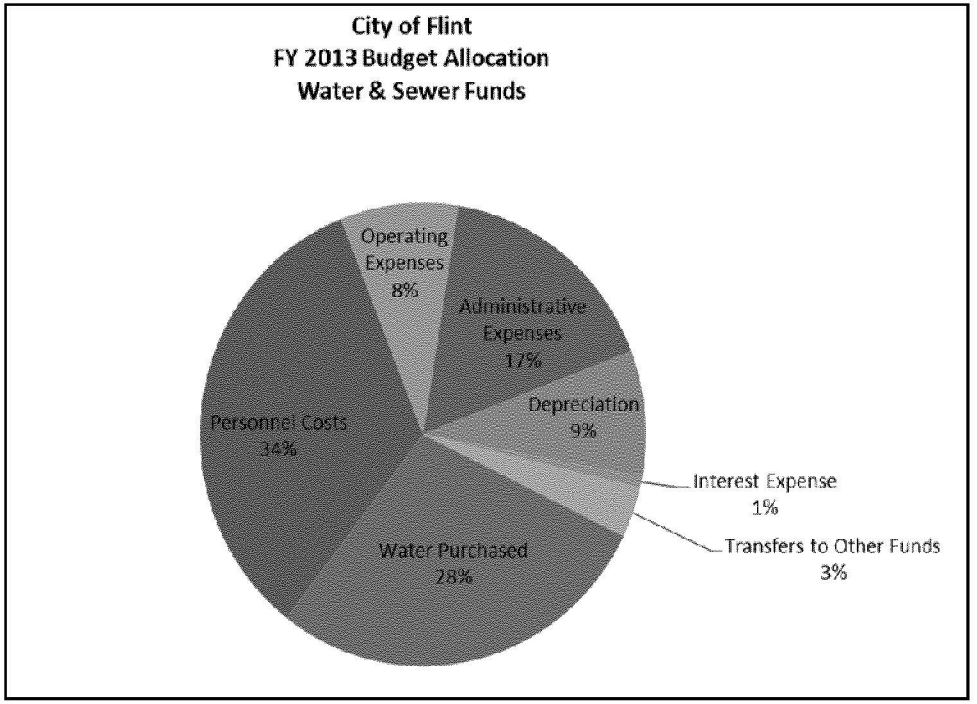
The "Fixed Costs" that must be covered to maintain the system and deliver quality water have increased over time.

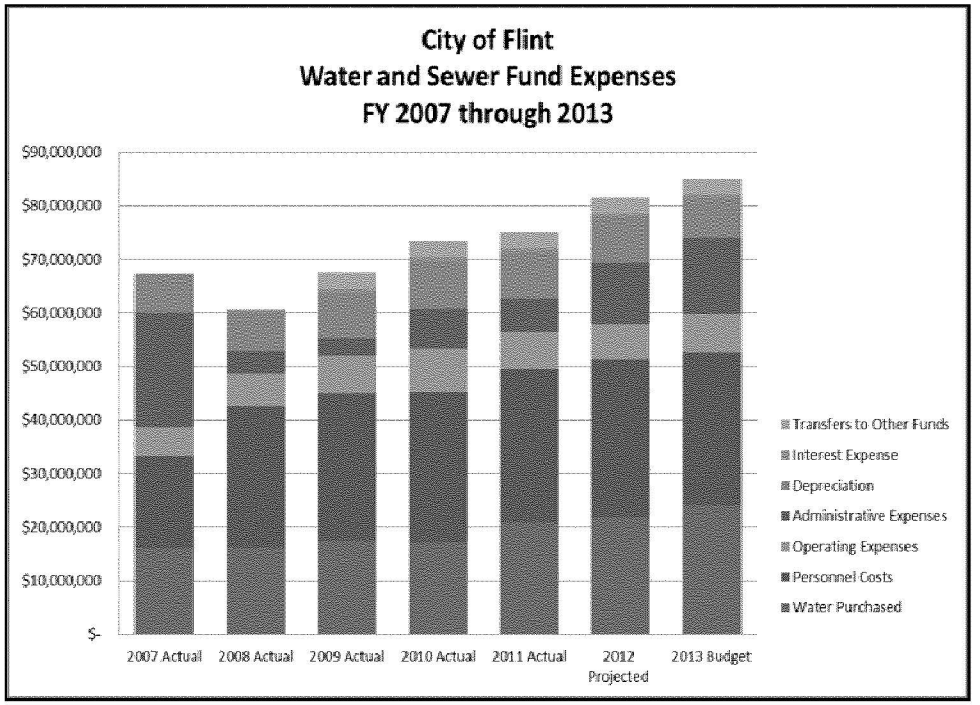
City Of Flint
Most Frequently Asked Questions about Water

- ❑Why are the water rates so high ?
- ❑How does my water bill work (Explanation of charges) ?
- ❑Why do others in the area pay less for the same amount of water ?
- ❑Where has all of the water and sewer fund money gone ?
- ❑What do I do if I think my bill is incorrect ?
- ❑What effect does leakage or theft have on my bill ?
- ❑How can I report water theft ?
- ❑Why don't we go back to using the Flint River like we once did ?

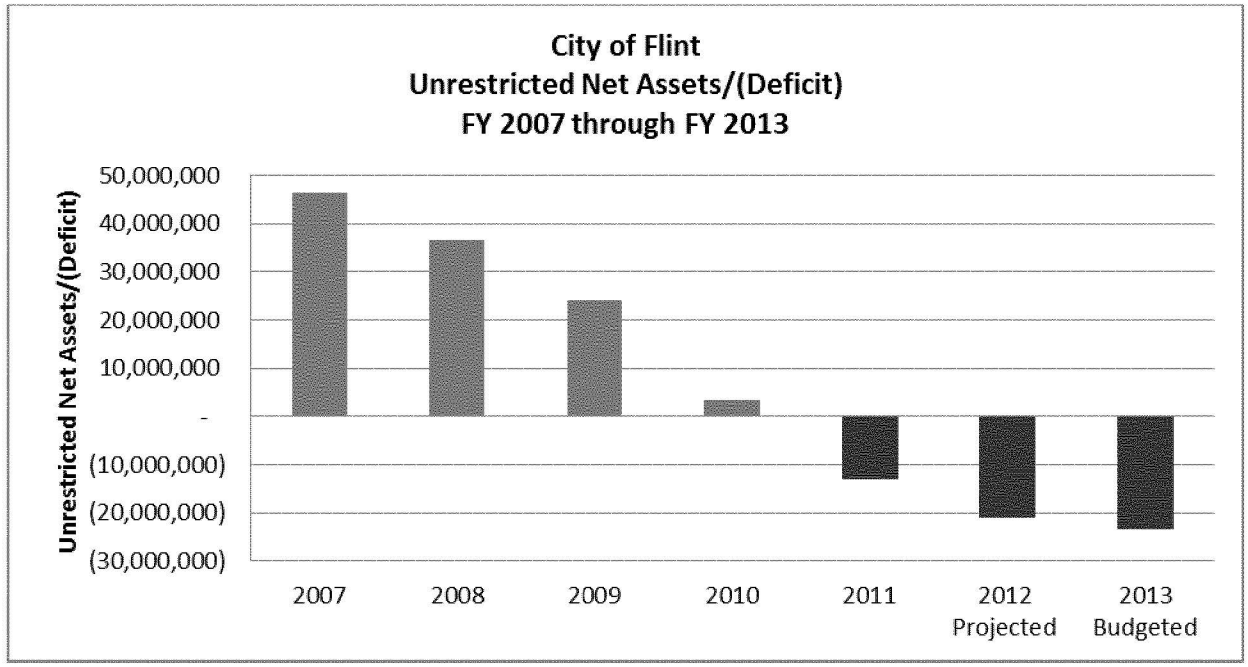
City of Flint

Budget Allocation and Fund Expenses

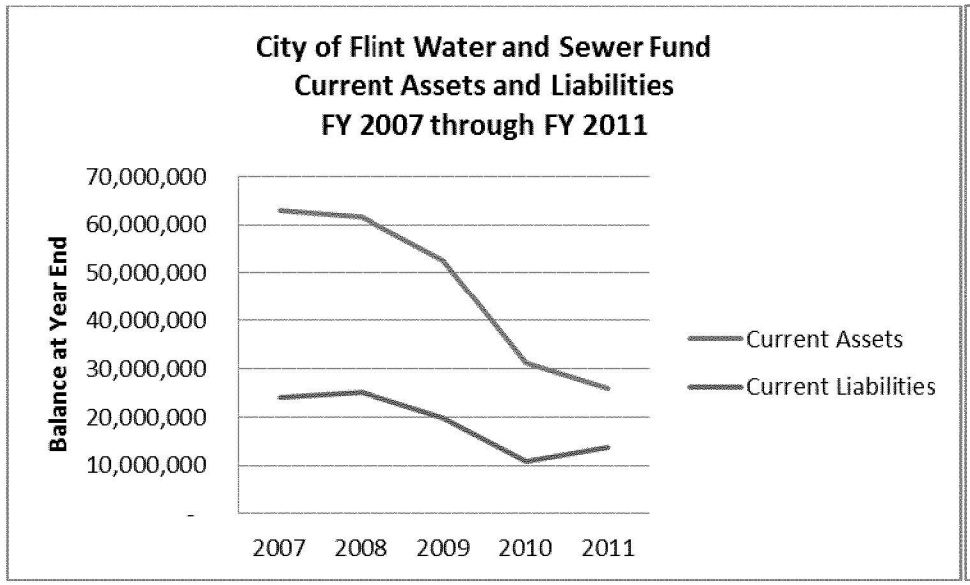


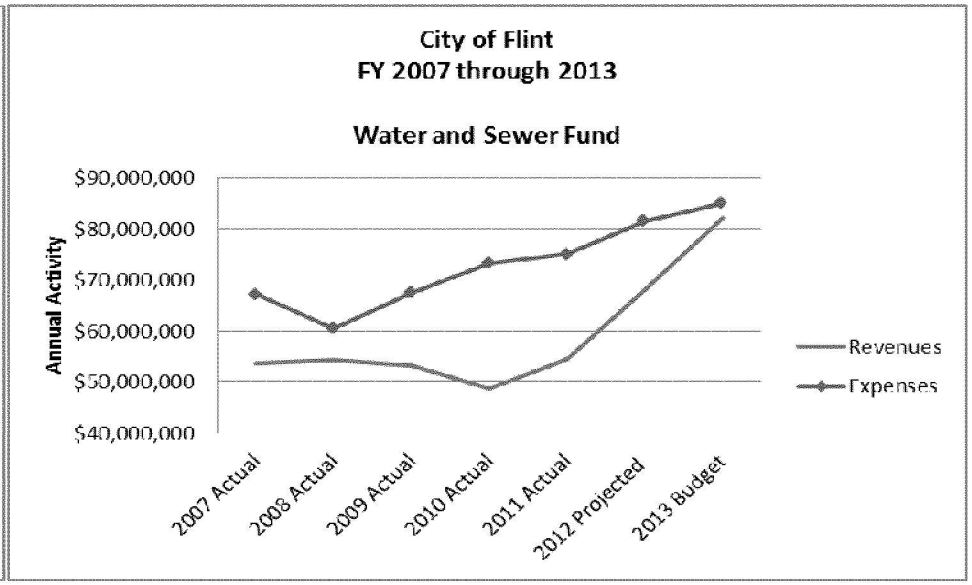


	Audited						
	2007 Actual	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Projected	2013 Budget
Operating Revenues	51,090,679	51,100,332	51,906,553	47,926,589	54,385,644	67,983,044	81,734,552
Other Revenues	2,627,939	3,274,450	1,442,383	764,886	68,645	126,670	455,867
Annual Revenues	53,718,618	54,374,782	53,348,936	48,691,475	54,454,289	68,109,714	82,190,419
Water Purchased	16,052,006	16,297,871	17,421,663	17,103,752	20,919,987	21,756,787	24,031,417
Personnel Costs	17,292,444	26,302,590	27,591,206	28,149,946	28,618,817	29,640,499	28,546,350
Operating Expenses	5,355,638	6,145,119	6,950,534	8,146,390	6,917,964	6,420,260	7,259,290
Administrative Expenses	21,300,900	4,229,382	3,403,231	7,327,630	6,221,627	11,465,462	14,140,047
Depreciation	7,217,142	7,132,870	8,364,022	8,854,889	8,689,809	8,615,000	7,500,000
Interest Expense	86,632	485,499	868,031	812,270	754,890	705,150	644,314
Transfers to Other Funds	-	-	2,990,000	2,990,000	2,990,000	2,990,000	2,990,000
Annual Expenses	67,304,762	60,593,331	67,588,687	73,384,877	75,113,094	81,593,158	85,111,418



	2007 Actual	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Projected	2013 Budget
Revenues	53,718,618	54,374,782	53,348,936	48,691,475	54,454,289	68,109,714	82,190,419
Expenses	67,304,762	60,593,331	67,588,687	73,384,877	75,113,094	81,593,158	85,111,418

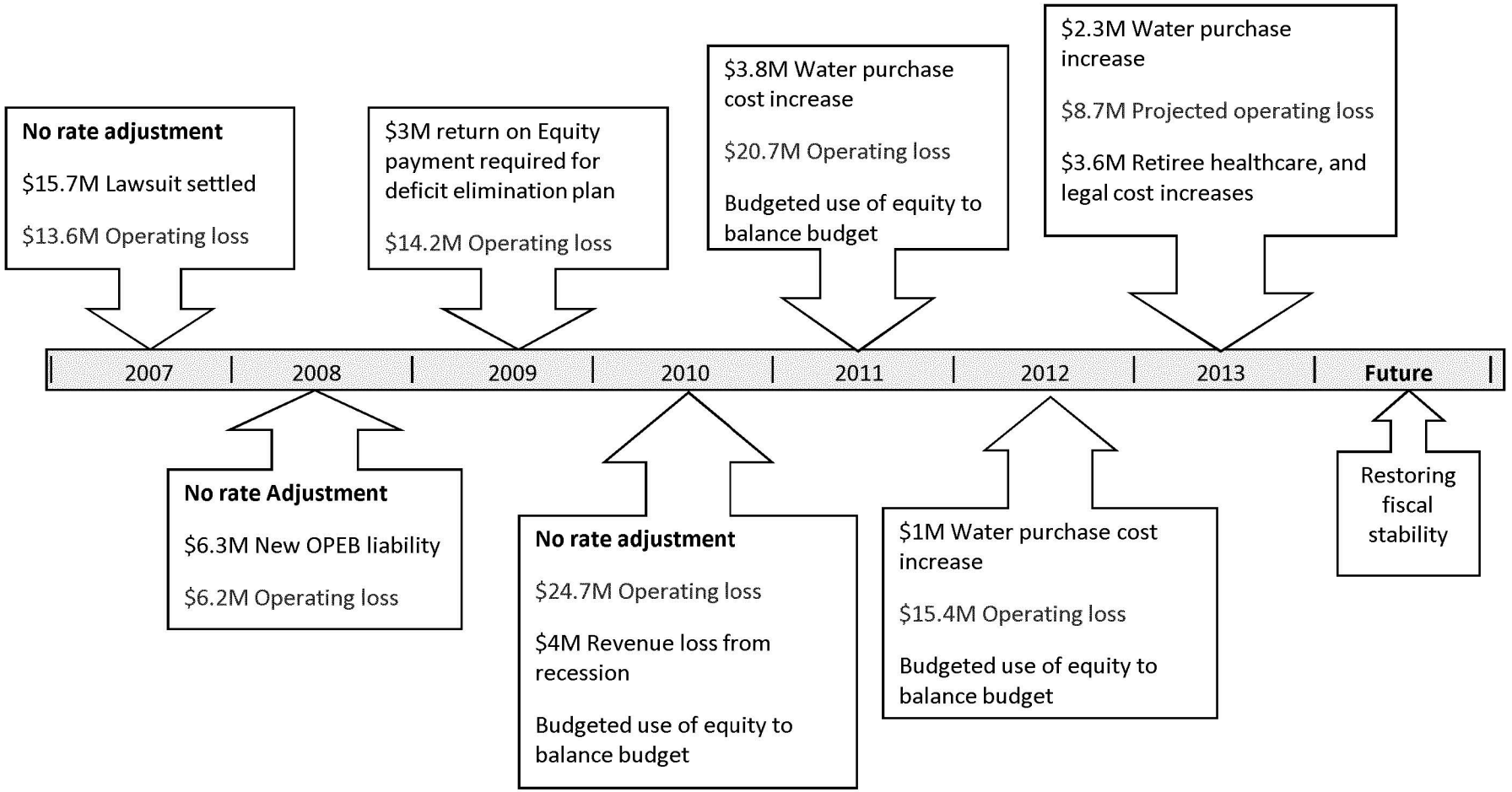




City of Flint

Recent Timeline of Water and Sewer Funds

FY 2007 through 2013



City of Flint- Water and Sewer System Additional Asset / Revenue Data

The average annual residential water sewer bill in FY2005 was less than $700 annually
The average annual residential water/ sewer bill in FY13 will be nearly $1,700

Expenses have exceeded revenues every year since 2006:

FISCAL YEAR	Rate Base	Revenues	Expenses	Revenues Minus Expenses	Unreserved System Equity	FACTORS IMPACTING SOLVENCY			COST IMPACT
2006	2005	$55,204,242	$50,933,792	**$4,270,450**	**$60,340,013**				
									(millions)
2007	2005	$53,856,857	$67,442,993	($13,586,136)	$46,399,452	No rate adjustment			??
						$15.7 million lawsuit settlement	15.7	0	$15.7
2008	2005	$54,374,781	$60,593,331	($6,218,550)	$36,482,488	No rate adjustment			??
						OPEB liabilities added	3.6	2.7	$6.3
2009	2009	$53,488,463	$67,728,218	($14,239,755)	$24,023,065	ROE payment added as part of City [	1.9	1.1	$3.0
2010	2009	$48,820,329	$73,513,725	($24,693,396)	$3,531,768	No rate adjustment			??
						Use of retained earnings budgeted	12.5	0.5	$13.0
						Revenue lost due to recession	2	2	$4.0
2011	2011	$54,527,079	$75,185,879	($20,658,800)	($12,866,607)	Use of retained earnings budgeted	7.1	3.5	$10.6
	2011					Water purchase cost increase	0	3.8	$3.8
2012		$68,279,187	$83,682,840	($15,403,653)	($20,884,122)	Use of retained earnings budgeted	5.1	0	$5.1
						Water purchase cost increase	0	0.8	$0.8
2013	2013	$82,220,420	$90,970,420	**($8,750,000)**	**($23,379,690)**	Water purchase cost increase	0	2.3	$2.3
						RHC/Legal/Admin Cost Allocation	2.1	1.5	$3.6
				($99,279,840)					$68.2

Calculation of Water and Sewer Rates for FY13 Budget

March, 2012:

	Expense Projection Based on FY12 Costs	Revenue Projection Based on FY12 Receipts	Difference Between Projected Revenues and Expenses	Rate Increase Necessary To Close Gap
Water	$49.9	$44.4	-$5.5	12.4%
Sewer	$31.0	$21.4	-$9.6	44.9%
TOTAL	$80.9	$65.8	-$15.1	22.9%

CITY of FLINT, MICHIGAN
WATER &/OR SEWER BILL

Service at: 5810 BALDWIN BLVD

TREASURER
CITY OF FLINT
P.O. BOX 1950
FLINT, MI 48501

PRESORTED
FIRST CLASS MAIL
US POSTAGE PAID
CITY OF FLINT

3419 Active

ACCOUNT NUMBER	DUE DATE
BALD-005810-0000-01	02/28/2012

NET AMOUNT DUE
147.85

RETURN THIS STUB WITH YOUR PAYMENT

Seq=3138

**AUTO [redacted]

00000376810000014785022820120000014913777O6

KEEP THIS PORTION FOR YOUR RECORDS

LAST READ/DATE/TYPE		NEW READ/DATE/TYPE		CONS	SERVICE	CHARGE
361	01/05/2012 A	363	02/03/2012 A	2	Sewer Non-metered	6.62
					Sewer Svc Chrg	22.07
					Water	13.36
					Water Svc Chrg	19.36

Prev. Balance	161.08
Payments	-75.00
Adjustments	0.00
Current Penalty	0.36
New Charges	61.41
Total Due	147.85
Due Date	02/28/2012

ACCOUNT: BALD-005810-0000-01 SERVICE AT: 5810 BALDWIN BLVD

PENALTY ASSESSED 30 DAYS AFTER DUE DATE

CITY OF FLINT
DEPARTMENT OF FINANCE

Customer Service Center

Dayne Walling
Mayor

Douglas Bingaman
Treasurer

CITY OF FLINT
WATER NON-PAYMENT TURN-OFF POLICY

1. Water services to any customer may be shut off if the account is not paid until after 30 days after the due date. (City ordinance 46-52 (h))

2. Non-payment turn-offs are done only Monday through Thursday. The Customer Service Center does not schedule non-payment turn-offs on Fridays, Saturdays, Sundays, or most recognized holidays.

3. Illegal usage, broken payment arrangements and NSF (non-sufficient funds) turn-offs are done at any time without additional notice.

4. Turn-off notices are mailed to delinquent customers fifteen (15) days before actual turn-off.

5. The water customer is responsible for maintenance of all plumbing in the premises including connection to City water mains or sewer lines.

6. If a customer disputes a water bill and is unable to resolve the issue with Customer Service personnel, the customer may request an administrative review. Further information on any water account may be obtained by calling (810) 766-7015 or visiting the Customer Service Center at 1st Floor, City Hall, 1101 S. Saginaw St.

Preliminary Options for Future City of Flint Water Sources

Consider a New Negotiated Contract with Detroit Water and Sewer Department

PRO'S	CON'S
No upfront capital costs	Lack of control over new / fixed changes
Possibility to negotiate a lower rate	Past practices
Ability to "Blend" water sources to further control costs	

Consider a Contract with the Karegnondi Water Authority

PRO'S	CON'S
Voting member of KWA board	Capital cost (debt service)
Ability to "Blend" water sources to further control costs	Uncertainty of final costs
Raw water is an asset for attracting new buisnesses	

Blended Use of the Flint River

PRO'S	CON'S
Helps control cost of water	

*** CURRENTLY NO DECISIONS HAVE BEEN MADE REGARDING THE FUTURE WATER SOURCE

Improvements for City of Flint Water System

Reduce Leakage

- **Finalize a Preventative Maintenance Plan**
  - (Planning started in January 2012, requires funding, … part of Operational Costs)
  - Will help identify repair area's

- **Reduce water theft**

- **Replace water meters**
  - We currently have an eighteen month plan to replace all meters with more efficient *"Smart Meters"*

- **Encourage routine household checks**
  - "Faulty" toilets are a significant reason for household water loss. and unexpected larger bills.

Other Leakage concerns

✓Transmission Loss

✓Fire Hydrants

✓Incorrect water bills

✓Non-Payment

City of Flint Water Fund

Proprietary Funds Revenues, Expenditures, and Changes in Net Assets
Fiscal Year Ended June 30

	2007	2008	2009	2010	2011	2012 Projected	2013 Budget
Current Assets	17,248,277	16,155,282	13,213,411	9,092,746	9,295,966		
Current Liabilities	7,053,131	7,039,015	6,796,178	8,287,409	11,736,286		
Capital Assets, net of accumulated depreciation	34,453,626	57,264,585	55,977,802	54,419,070	52,253,233		
Revenue Bonds, long-term portion	33,759,432	31,804,432	30,156,259	28,116,259	25,925,336		
Unrestricted Net Assets/(Deficit)	12,183,661	8,396,496	2,694,056	(5,795,973)	(12,443,265)	(13,237,665)	(12,733,233)

City of Flint Sewer Fund

Proprietary Funds Revenues, Expenditures, and Changes in Net Assets
Fiscal Year Ended June 30

	2007	2008	2009	2010	2011	2012 Projected	2013 Budget
Current Assets	45,805,754	45,515,711	39,299,954	22,199,959	16,496,427		
Current Liabilities	17,117,109	18,000,968	12,928,688	2,570,710	1,894,249		
Capital Assets, net of accumulated depreciation	76,913,051	73,794,673	74,719,675	70,200,627	65,736,675		
Revenue Bonds, long-term portion	-	-	-	-	-		
Unrestricted Net Assets/(Deficit)	34,215,792	28,085,991	21,329,011	9,327,738	(423,349)	(7,646,457)	(10,646,457)

Water and Sewer Combined

	2007	2008	2009	2010	2011	2012 Projected	2013 Budgeted
Current Assets	63,054,031	61,670,993	52,513,365	31,292,705	25,792,393		
Current Liabilities	24,170,240	25,039,983	19,724,866	10,858,119	13,630,535		

Response to Treasury regarding water rates, etc.

The cost of water and sewer in the City of Flint has become one of the most vexing issues facing the Emergency Financial Manager. When the Emergency Manager was appointed in December 2011 the water system had a $20 million deficit. In order to address this deficit the EM was forced to increase water and sewer rates by over a combined 120% in the past 18 months.

When the previous EFM left the City in 2004, the water system has a reserve of approximately $60 million. In the intervening years several things occurred: for three of five years (2007-2011) no rate increases were passed along to customers even though Detroit charged increases of over 10% per year; in the years when increases were passed along those amounts did not equal the actual cost of the system; the City chose to use the equity built up in the Water and Sewer funds until that was no longer available; a large lawsuit was settled; the City must pay for the $48 million MDEQ upgrades required at the Water Treatment Plant; and unbilled or unpaid water and sewer charges increased significantly.

In the past 18 months water and sewer rates have been increased to reflect the actual costs to operate the water and sewer system. Major leaks in the distribution system have been repaired. Unpaid water and sewer usage is now being addressed and the water affidavit process is part of this problem.

The City of Flint currently allows landlords to put the water and sewer billing in the name of the renter. This affidavit process holds the landlord harmless for any water costs. The deposit for the affidavit has been set at $100, which is the lowest in the County. The deposit fees in the County range from a low of $100 to a high of $500. The City is raising its rate to $350, which puts us about in the middle of the range. Depending on usage, this will cover 60 to 90 days' water charges and reduce the amount of uncollected billing. Keep in mind, any water not paid for is eventually charged to those who do pay through increased rates.

Because the deposit is so low in relation to the current charges, renters quickly owe more than the deposit, and find it easier to simply walk away from the rental and forfeit the deposit. This results in the City being on the hook for the unpaid bills. Currently there are 4,893 affidavits, and 4029 of them (82%) past due. This facctor alone totals to just under $3 million. In addition, when the renter walks away, the City has no way of knowing that the property is vacant. Many times the landlord rents the property again, without filing an affidavit, and the water continues to be charged to the former renter, again adding uncollected bills to the City. In the past the collection rate for past due accounts, when turned over to a collection agency, has been about 3% on average. Keep in mind that this is a deposit, not a fee, and can be refunded when the renter leaves the property. Also, the landlord can avoid the renter's deposit requirement by keeping the water and sewer billing in his name.

The City is also studying the potential to hold the landlord accountable for the water charges under certain conditions, such as failure to notify the City when a renter leaves and then renting the property again without filiing a new affidavit.

The City recognizes that the high cost of water is a factor which is causing low income residents to choose to leave the City and the increase in the deposit fee might accelerate that choice. However, many of the surrounding communities charge a higher deposit than does the City o Flint. Renters are leaving the City because they can get better housing for less money, live in safer neighborhoods with better schools, have their water charges decrease by about half, and have their insurance rates reduced by approximately 50%.

Water and sewer costs have resulted in about 8,000 current customers to be more than 60 days past due. Many are senior citizens who have lived in Flint their entire life, paid their taxes, etc. and now find themselves unable to pay their water bill. This concerns the City more than the issue of deposits. We have put in place for this year the ability for citizens to direct a part of their city tax refund to help people with their water bills, and we are reviewing other options as well as scheduled meetings with agencies involved in helping low income people with their bills.

We further recognize that we have staffing issues and water theft to address. The City is able to complete about 120 water shut-offs per week. At that rate we can not keep up with delinquent account shut-offs. The city also reconginzes that water theft through meter by-pass or unauthorized turn-on must be resolved.

Ultimately, the City must find a way to hold down future increases in the cost of water, to bring them more in line with the Genesee County water customers. To this end the City has recommended to Treasury, that the City leave the Detroit Water System and join KWA with Genesee County, Lapeer and Sanilac Counties and the City of Lapeer. We believe this is the most significant long term factor in stabilizing costs to the water customers in the City of Flint.

From: Clayton, Stacie (GOV)
Sent: Wednesday, March 04, 2015 4:55 PM
To: Elizabeth Murphy
Subject: FW: Water Advisory Committee Prep Materials
Attachments: Water Advisory Cmte 030515.zip

Liz,

Please be sure to use my email (or at least copy me) on all matters regarding the Water Advisory Committee to ensure Harvey reviews the material.

Thank you,
Stacie

Stacie Clayton, Assistant Director
Harvey Hollins III, Director
Governor's Office of Urban and Metropolitan Initiatives
3044 West Grand Boulevard, Ste. 14-650
Detroit, MI 48202
313.456.4994 (office)
claytons3@michigan.gov

From: Elizabeth Murphy [mailto:emurphy@cityofflint.com]
Sent: Wednesday, March 04, 2015 3:02 PM
Subject: Water Advisory Committee Prep Materials

I am sending you a zip folder containing the handout materials which you will receive at the Water Advisory Committee meeting tomorrow. Mayor Walling suggested that you may want to have time to look over these documents in preparation for the meeting.

Please stop at the check in table tomorrow to receive your folder and name tag.

--
Liz Murphy
Assistant to the Emergency Manager
City of Flint
810 237 2025

Document Cannot Be Imaged

Flint Water Advisory Committee First Meeting
March 5, 2015 2-4pm MTA Auditorium

Agenda

Committee Members will receive a packet at the entry with their name tag, question sticky notes, pencil and other sources of information.

I. **Welcome and Introduction of Facilitators**

II. **Facilitator Ground Rules and Agenda Review**

Purpose of the Water Advisory Committee: Provide a respectful means of sharing factual information between the City of Flint and the Flint Water and Sewer Customers

The meeting will follow the printed agenda.

The meeting must conclude at 4pm today. The Facilitator will keep us on track.

III. **Expected Outcomes:**

Today's meeting: that all of the water questions have been identified – we may not be able to answer all today, but we would like to set up a means of communicating with this committee on a regular basis.

Through 2016 – That the transition to KWA water processing and distribution is a smooth, satisfactory process resulting a safe, consistent water supply.

IV. **Status of Water and Distribution System Today – H. Croft, Director Department of Public Works**

Evaluation of Flint Water Treatment Plant and Distribution System – Veolia, City of Flint Consultant

V. **Questions from Committee Members and Sort by Category: Safety, Quality, Affordability, Sustainability, History, and Miscellaneous**

VI. **Response to most frequently asked questions.**

VII. **Next Steps**

The next meeting has been scheduled for Thursday, March 19, 2015 here at the MTA Auditorium from 2-4pm.

How often would the committee like to meet? How did this format work?

VIII. **Adjourn**

City of Flint

Water Forum

5/30/2012

City Of Flint Water Forum

CONTENTS

Water History Facts 3

Frequently Asked Questions 4

Budget Allocation and Fund Expenses 5

Asset / Revenue Charts 6

Recent Timeline of Water and Sewer Funds 7

City of Flint- Water and Sewer System Additional Asset / Revenue Data 8

Calculation of Water and Sewer Rates for FY13 Budget 9

Example Water Bill 10

Turn-off Policy 11

Preliminary Options for Future City of Flint Water Sources 12

Improvements for City of Flint Water System 13

City Of Flint Water History Facts

Current Treatment Plant was put into service in 1954.

Current 72" main pipeline was completed in 1970.

Flint signed a 30 year contract with Detroit water and Sewer Department in the mid 1960's.

The contract with DWSD has expired and we are currently operating on a yearly extension.

In 2006 Flint completed a $48,000,000 upgrade of the existing Water Plant. (Required by the MDEQ & for backup only).

Flint's Water & Sewer System is approximately a 300,000,000 Enterprise.

Flint's Water & Sewer System is designed to deliver water to over 200,000 people with over 1,500 miles of infrastructure.

Flint's most recent census count shows a population of approximately 102,000 in 2010.

Flint's census population in 2000 was approximately 124,000.

The water system had over 45,000 customers in June of 1999.

The water system had just over 36,000 customers by June 2011.

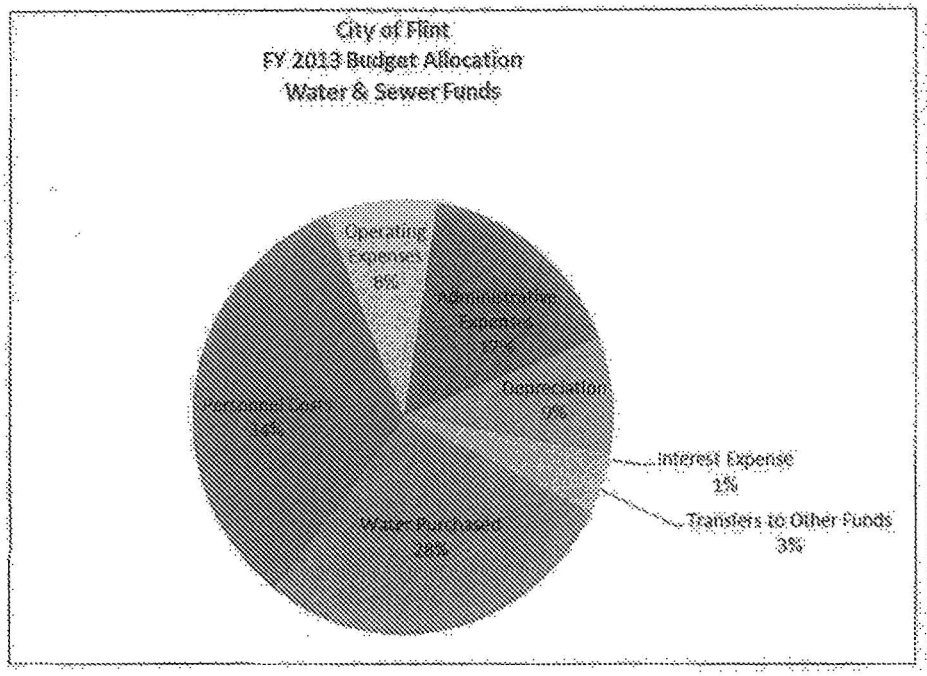
The "Fixed Costs" that must be covered to maintain the system and deliver quality water have increased over time.

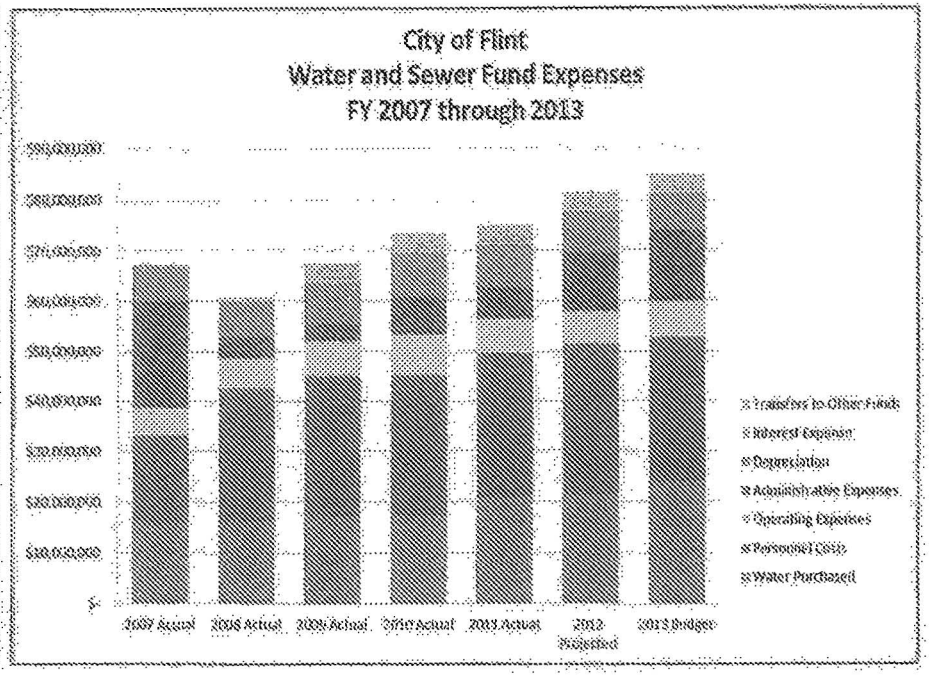
City Of Flint
Most Frequently Asked Questions about Water

- ❑Why are the water rates so high ?
- ❑How does my water bill work (Explanation of charges) ?
- ❑Why do others in the area pay less for the same amount of water ?
- ❑Where has all of the water and sewer fund money gone ?
- ❑What do I do if I think my bill is incorrect ?
- ❑What effect does leakage or theft have on my bill ?
- ❑How can I report water theft ?
- ❑Why don't we go back to using the Flint River like we once did ?

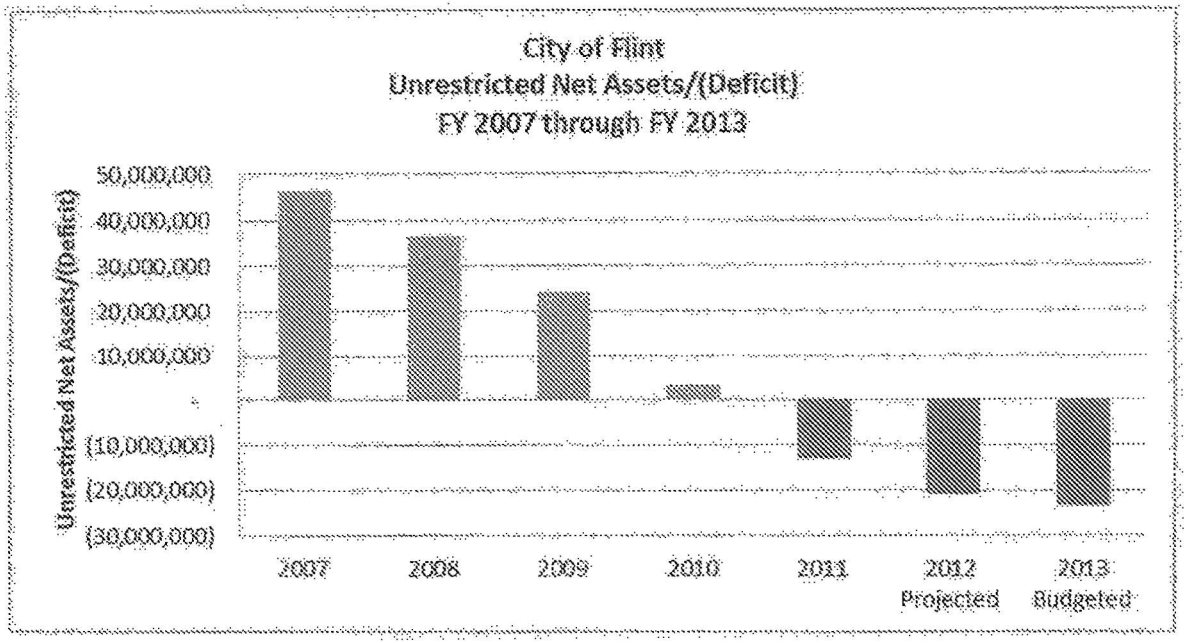
City of Flint

Budget Allocation and Fund Expenses

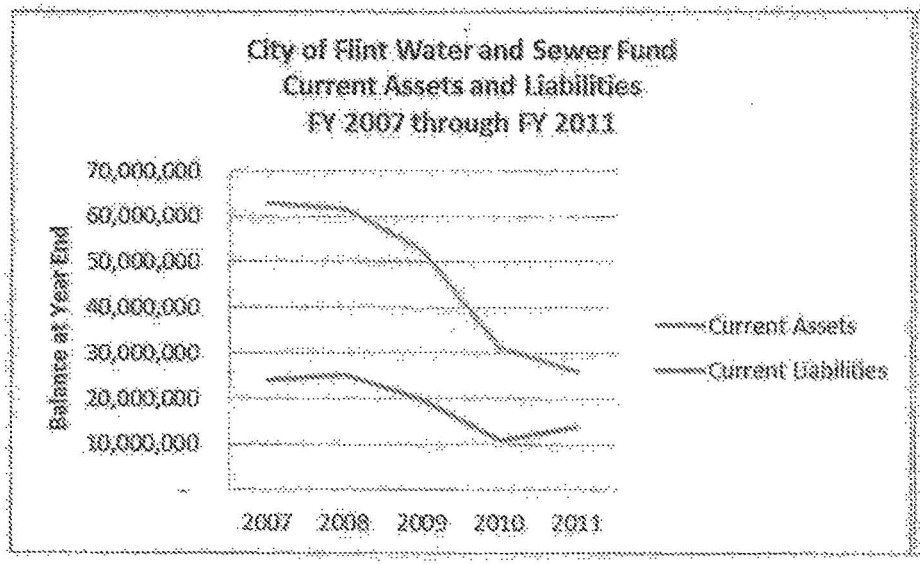


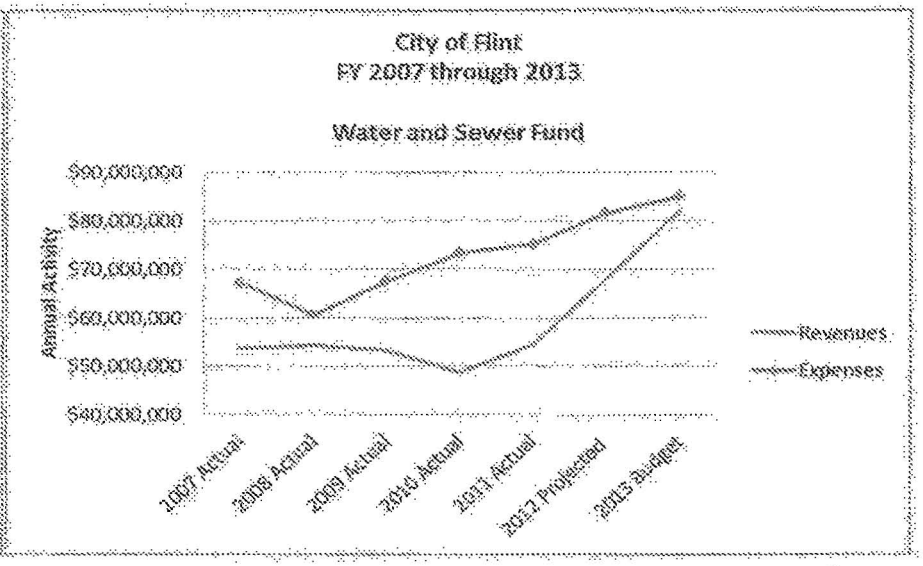


	Audited 2007 Actual	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Projected	2013 Budget
Operating Revenues	51,090,679	51,100,332	51,906,553	47,926,589	54,385,644	67,983,044	81,734,552
Other Revenues	2,627,939	3,274,450	1,442,383	764,886	68,645	126,670	455,867
Annual Revenues	53,718,618	54,374,782	53,348,936	48,691,475	54,454,289	68,109,714	82,190,419
Water Purchased	16,052,006	16,297,871	17,421,663	17,103,752	20,919,987	21,756,787	24,031,417
Personnel Costs	17,292,444	26,302,590	27,591,206	28,149,946	28,618,817	29,640,498	28,546,350
Operating Expenses	5,355,638	6,145,119	6,950,534	8,146,390	6,917,964	6,420,260	7,259,290
Administrative Expenses	21,300,900	4,229,382	3,403,231	7,327,630	6,221,627	11,465,462	14,140,047
Depreciation	7,217,142	7,132,870	8,364,022	8,854,889	8,689,809	8,615,000	7,500,000
Interest Expense	86,632	485,499	868,031	812,270	754,890	705,150	644,314
Transfers to Other Funds	-	-	2,990,000	2,990,000	2,990,000	2,990,000	2,990,000
Annual Expenses	67,304,762	60,593,331	67,588,687	73,384,877	75,113,094	81,593,158	85,111,418



	2007 Actual	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Projected	2013 Budget
Revenues	53,718,618	54,374,782	53,348,936	48,691,475	54,454,289	68,109,714	82,190,419
Expenses	67,304,762	60,593,331	67,588,687	73,384,877	75,113,094	81,593,158	85,111,418

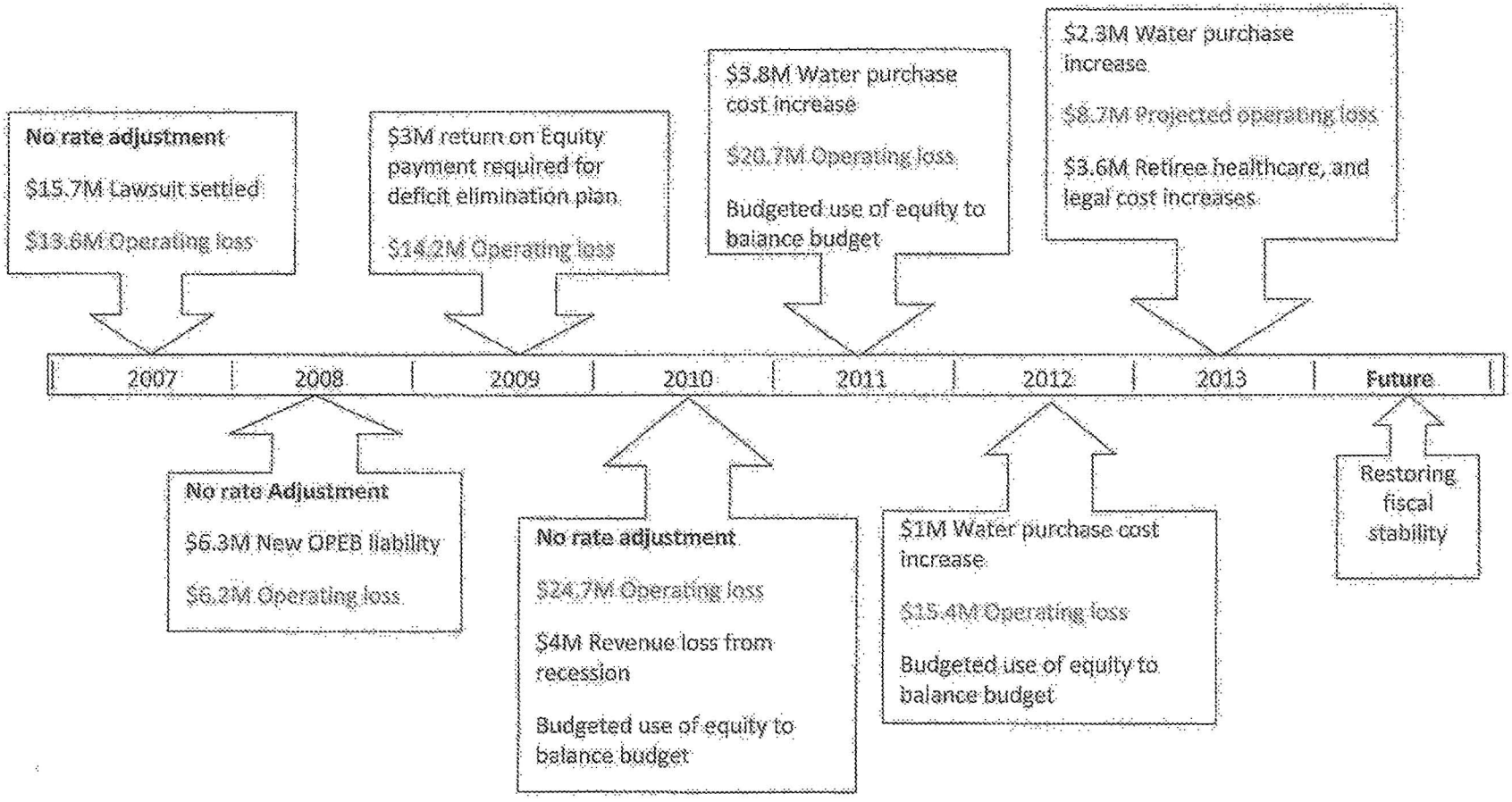




City of Flint

Recent Timeline of Water and Sewer Funds

FY 2007 through 2013



City of Flint- Water and Sewer System Additional Asset / Revenue Data

The average annual residential water sewer bill in FY2005 was less than $700 annually
The average annual residential water/ sewer bill in FY13 will be nearly $1,700

Expenses have exceeded revenues every year since 2006:

FISCAL YEAR	Rate Base	Revenues	Expenses	Revenues Minus Expenses	Unreserved System Equity	FACTORS IMPACTING SOLVENCY			COST IMPACT
2006	2005	$55,204,242	$50,933,792	$4,270,450	$60,340,013				
									(millions)
2007	2005	$53,866,857	$67,442,993	($13,576,136)	$46,399,452	No rate adjustment			??
						$15.7 million lawsuit settlement	15.7	0	$15.7
2008	2005	$54,374,781	$60,693,331	($6,318,550)	$36,482,488	No rate adjustment			??
						OPEB liabilities added	3.6	2.7	$6.3
2009	2009	$53,488,463	$67,728,218	($14,239,755)	$24,023,065	ROE payment added as part of City L	1.9	1.1	$3.0
2010	2009	$46,620,329	$73,513,725	($26,893,396)	$3,591,768	No rate adjustment			??
						Use of retained earnings budgeted	12.5	0.5	$13.0
						Revenue lost due to recession	2	2	$4.0
2011	2011	$54,527,079	$75,185,679	($20,658,600)	($12,868,607)	Use of retained earnings budgeted	7.1	3.5	$10.6
	2011					Water purchase cost increase	0	3.8	$3.8
2012		$66,279,187	$83,682,840	($16,403,653)	($29,804,122)	Use of retained earnings budgeted	5.1	0	$5.1
						Water purchase cost increase	0	0.6	$0.8
2013	2013	$82,220,420	$90,970,420	($8,750,000)	($23,679,690)	Water purchase cost increase	0	2.3	$2.3
						RHC/Legal/Admin Cost Allocation	2.1	1.5	$3.6
				($39,279,840)					$68.2

Calculation of Water and Sewer Rates for FY13 Budget

March, 2012:

	Expense Projection Based on FY12 Costs	Revenue Projection Based on FY12 Receipts	Difference Between Projected Revenues and Expenses	Rate Increase Necessary To Close Gap
Water	$49.9	$44.4	-$5.5	12.4%
Sewer	$31.0	$21.4	-$9.6	44.9%
TOTAL	$80.9	$65.8	-$15.1	22.9%

CITY of FLINT, MICHIGAN
WATER &/OR SEWER BILL

Service at: 5810 BALDWIN BLVD

TREASURER
CITY OF FLINT
P.O. BOX 1950
FLINT, MI 48501

PRESORTED
FIRST CLASS MAIL
US POSTAGE PAID
CITY OF FLINT

3419 Active

ACCOUNT NUMBER	DUE DATE
[redacted]	02/28/2012
	NET AMOUNT DUE
	147.85

RETURN THIS STUB WITH YOUR PAYMENT

Seq=3138

**AUTO [redacted]

00000376810000014785022820120000014913777O6

KEEP THIS PORTION FOR YOUR RECORDS

LAST READ/DATE/TYPE		NEW READ/DATE/TYPE		CONS	SERVICE	CHARGE
381	01/05/2012 A	383	02/03/2012 A	2	Sewer Non-metered	6.62
					Sewer Svc Chg	22.07
					Water	13.36
					Water Svc Chg	19.36

Prev. Balance	161.08
Payments	-75.00
Adjustments	0.00
Current Penalty	0.36
New Charges	61.41
Total Due	147.85
Due Date	02/28/2012

ACCOUNT: BALD-005810-0000-01 SERVICE AT [redacted]

PENALTY ASSESSED 30 DAYS AFTER DUE DATE

CITY OF FLINT
DEPARTMENT OF FINANCE

Customer Service Center

Dayne Walling
Mayor

Douglas Bingaman
Treasurer

CITY OF FLINT
WATER NON-PAYMENT TURN-OFF POLICY

1. Water services to any customer may be shut off if the account is not paid until after 30 days after the due date. (City ordinance 46-52 (h))

2. Non-payment turn-offs are done only Monday through Thursday. The Customer Service Center does not schedule non-payment turn-offs on Fridays, Saturdays, Sundays, or most recognized holidays.

3. Illegal usage, broken payment arrangements and NSF (non-sufficient funds) turn-offs are done at any time without additional notice.

4. Turn-off notices are mailed to delinquent customers fifteen (15) days before actual turn-off.

5. The water customer is responsible for maintenance of all plumbing in the premises including connection to City water mains or sewer lines.

6. If a customer disputes a water bill and is unable to resolve the issue with Customer Service personnel, the customer may request an administrative review. Further information on any water account may be obtained by calling (810) 766-7015 or visiting the Customer Service Center at 1st Floor, City Hall, 1101 S. Saginaw St.

Preliminary Options for Future City of Flint Water Sources

Consider a New Negotiated Contract with Detroit Water and Sewer Department

PRO'S	CON'S
No upfront capital costs	Lack of control over new / fixed changes
Possibility to negotiate a lower rate	Past practices
Ability to "Blend" water sources to further control costs	

Consider a Contract with the Karegnondi Water Authority

PRO'S	CON'S
Voting member of KWA board	Capital cost (debt service)
Ability to "Blend" water sources to further control costs	Uncertainty of final costs
Raw water is an asset for attracting new buisnesses	

Blended Use of the Flint River

PRO'S	CON'S
Helps contro cost of water	

*** CURRENTLY NO DECISIONS HAVE BEEN MADE REGARDING THE FUTURE WATER SOURCE

Improvements for City of Flint Water System

Reduce Leakage

▪**Finalize a Preventative Maintenance Plan**
- (Planning started in January 2012, requires funding, … part of Operational Costs)
- Will help identify repair area's

▪**Reduce water theft**

▪**Replace water meters**
- We currently have an eighteen month plan to replace all meters with more efficient "*Smart Meters*"

▪**Encourage routine household checks**
- "Faulty" toilets are a significant reason for household water loss. and unexpected larger bills.

Other Leakage concerns

✓Transmission Loss

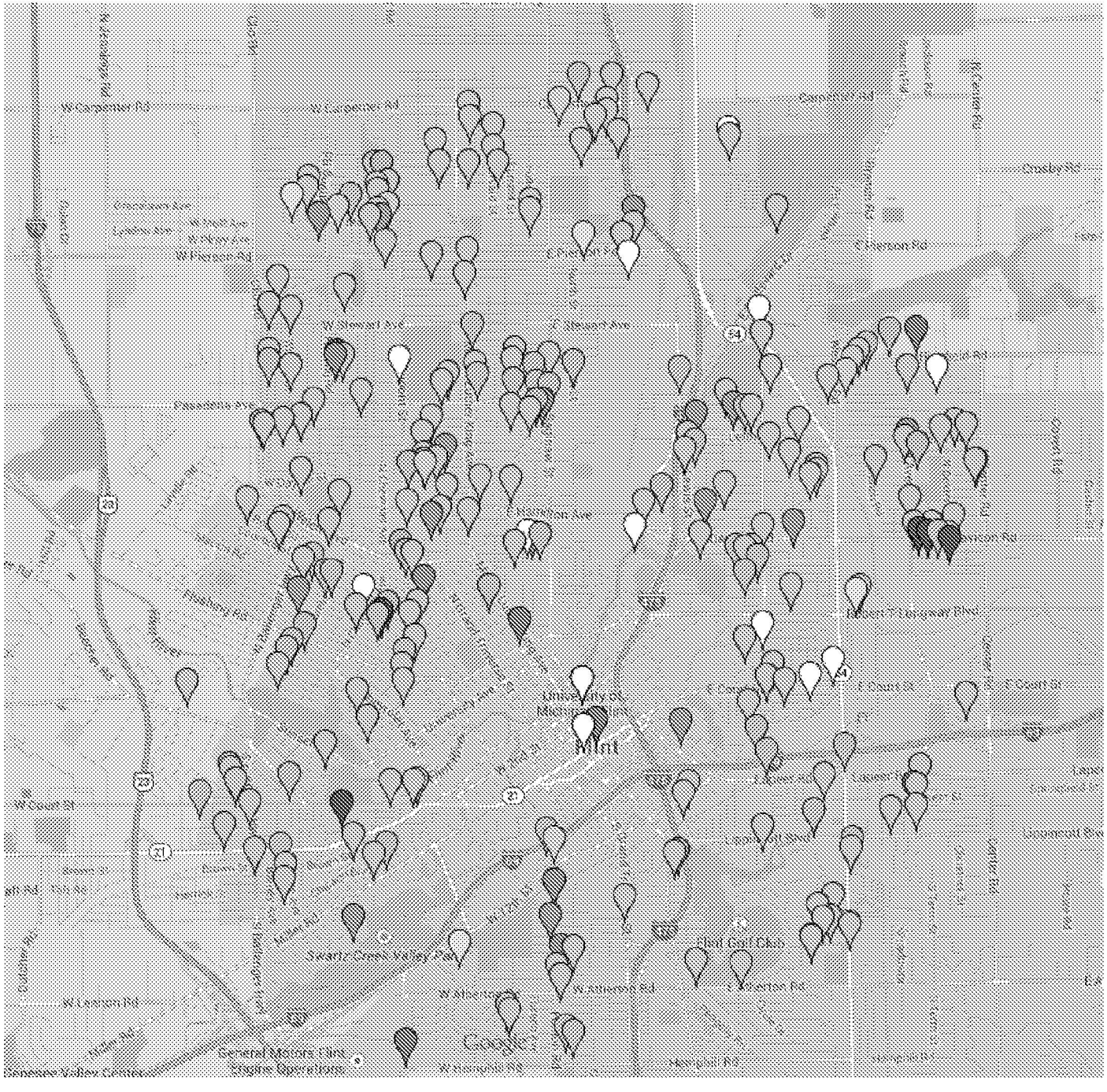
✓Fire Hydrants

✓Incorrect water bills

✓Non-Payment

Water Main Breaks 2014

- [x] Main Breaks from Leak Report
  - Clean break
  - Split at pipe bell
  - 2" dia hole
  - Service line
  - Corp break
  - Pipe bell clean break
  - hole in mechanical bell
  - mechanical joint
  - 3" dia hole
  - 4" hole
  - Previous repair failure
  - Split pipe
  - Split tee
  - valve face
  - 1" dia hole
  - 2" split
  - 3" split
  - 3/4" lead corp
  - 4" split
  - Tapping saddle
  - Other / No data


W Carpenter Rd
Crosley Rd
W Stewart Ave
E Stewart Ave
W Flemington Ave
E Flemington Ave
W Dayton St
E Dayton St
W Main St
E Main St
W Court St
E Court St
W Allison Rd
E Allison Rd
W Lexington Rd
E Lexington Rd
W Memorial Rd
E Memorial Rd
Dayton Rd
Fairview Rd
Linden Ave
Miami
Miami University Middletown
Sharon Woods Metropark
Sharon Woods Golf Club
General Motors Corp Engine Operations
Genesee Valley Center
Dayton-Cincinnati Turnpike
Middletown Eaton Rd
Yankee Rd
Verity Pkwy
Central Ave
Main St
Court St
Allison Rd
Lexington Rd
Memorial Rd
Stewart Ave
Flemington Ave
Dayton St
Carpenter Rd
Crosley Rd
Fairview Rd
Linden Ave
Yankee Rd
Verity Pkwy
Central Ave
Dayton-Cincinnati Turnpike
Middletown Eaton Rd
Sharon Woods Golf Club
Sharon Woods Metropark
Miami University Middletown
General Motors Corp Engine Operations
Genesee Valley Center
Miami
Oxford
Hamilton
Middletown
Monroe
Franklin
Springboro
Lebanon
Kettering
Centerville
Beavercreek
Fairborn
Xenia
Springfield
Troy
Piqua
Sidney
Urbana
Wilmington
Washington C.H.
Chillicothe
Hillsboro
Greenville
Tipp City
Huber Heights
Vandalia
Englewood
Clayton
Trotwood
Harrison
Hamilton
Fairfield
West Chester
Liberty Township
Mason
Lebanon
Kettering
Centerville
Beavercreek
Fairborn
Xenia
Springfield
Troy
Piqua
Sidney
Urbana
Wilmington
Washington C.H.
Chillicothe
Hillsboro
Greenville
Tipp City
Huber Heights
Vandalia
Englewood
Clayton
Trotwood
Harrison
Hamilton
Fairfield
West Chester
Liberty Township
Mason
Oxford
Monroe
Franklin
Springboro
Middletown
Dayton
Cincinnati
Columbus
Indianapolis
Richmond
Lexington
Louisville
Cleveland
Akron
Canton
Toledo
Detroit
Pittsburgh
Wheeling
Charleston
Huntington
Ashland
Portsmouth
Zanesville
Newark
Mansfield
Marion
Bucyrus
Findlay
Fremont
Sandusky
Lorain
Elyria
Medina
Wooster
Ashland
Mansfield
Marion
Bucyrus
Findlay
Fremont
Sandusky
Lorain
Elyria
Medina
Wooster
Zanesville
Newark
Portsmouth
Ashland
Huntington
Charleston
Wheeling
Pittsburgh
Detroit
Toledo
Canton
Akron
Cleveland
Louisville
Lexington
Richmond
Indianapolis
Columbus
Cincinnati
Dayton
Middletown
Oxford
Monroe
Franklin
Springboro

City of Flint Water System Facts

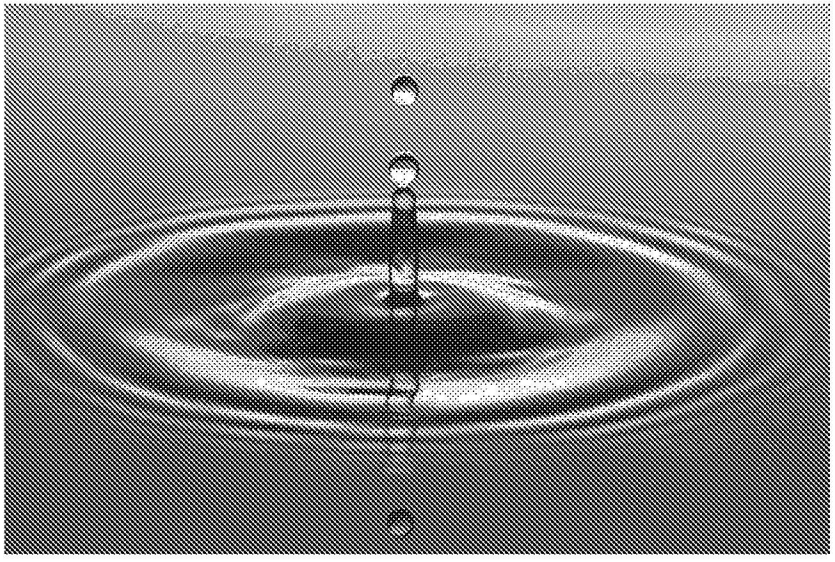
Over 600 Miles of Distribution Mains

Over 7000 Valves
Over 3909 Hydrants

Over 46,000 users in 2006
Only 31,000 users in 2014

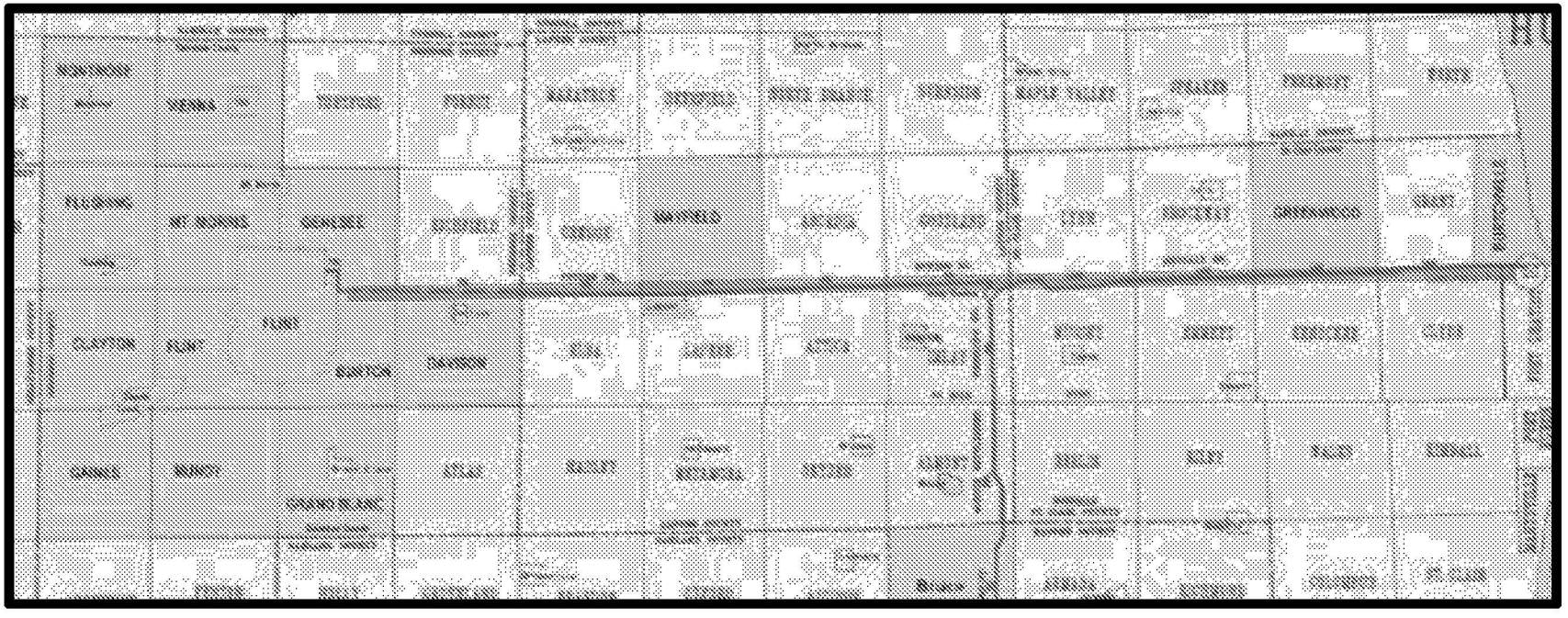
What Can Impact Water Quality ?

- Condition of source water
- Temperature
- Organic material
- Retention time in system
- Low flow
- Dead ends
- Main Breaks
- Repairs



Quality Indicators

- Chlorine residual
- Total coliforms



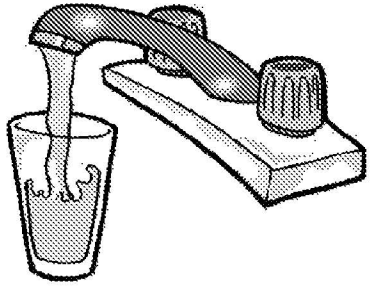
Flint River

vs.

DWSD

CITY TESTING

- 10 test sites around the city
- Tests are performed manually 2 – 3 times a week
- Over 100 Tests are performed a month
- All tests are reported to the DEQ for oversight
- Tests are performed **EVERY** four hours inside the Plant
- The City responds to and tests all reported concerns



Michigan DEQ
State License Types

Complete Treatment	Limited Treatment	Distribution
F-1	D-1	S-1
F-2	D-2	S-2
F-3	D-3	S-3
F-4	D-4	S-4

Recent Boil Water Advisories in MICHIGAN

LOCATION	DATE	CAUSE
Edwardsburg / Lunker	Nov 12, 2014	Fire
Superior Township	May 03, 2014	Main Break
Benton Harbor	Jan 9, 2014	Water Pressure
Union Township	Nov 6, 2013	Main Break
Charlevoix	August 7, 2013	Pressure Loss
Novi	Feb 13, 2013	Pressure Loss
Muskegon Heights	Nov 17, 2012	Main Break
Commerce Township	Dec 6, 2010	Depressurization

City of Flint Contacts

Public Works Director	Howard Croft – hcroft@cityofflint.com
Utilities Administrator	Daugherty Johnson- djohnson@cityofflint.com
Plant Supervisor	Brent Wright – bwright@cityofflint.com
F-1 Operator in Charge	Mike Glasgow – mglasgow@cityofflint.com
S-1 Operator in Charge	Robert Bincsik – rbincsik@cityofflint.com

Phone Numbers

City of Flint Treatment Plant	810-787-6537
Public Works Director	810-766-7346 x 2403
Utilities Administrator	810-766-7135 x 2602
EPA Safe Drinking Water Hotline	1-800-426-4791

City of Flint
Water Improvements since November 2014

DATE	IMPROVEMENT	EFFECT
Nov.	Increased flushing efforts (as weather permits)	Reduced time of water in the system
Nov.	Adjusted operational softening to no less than 80%	Reduce chlorine demand
Dec.	Started hydraulic modeling of distribution system	Helps to identify locations of bad valves
Dec.	Started evaluation of different polymers	Removal of organic carbon
Dec.	Started SCADA upgrades inside of Water Plant	Improvement of internal software controls
Jan.	Hired vendor to upgrade efficiency of the ozone system	Better oxidation and disinfecting
Jan.	Started jar testing	Assists in dosage amounts and polymer aids
Feb.	Hired consultant Veolia for process review	Professional recommendations
Feb.	Leased and installed TTHM analyzer	Increased internal testing ability
Feb.	Adjustments to reservoir level to match demand	Reduce time of water in system

City of Flint

Water System Update

With

Questions & Answers

February 16, 2015

* CITY HALL, 1101 S. SAGINAW STREET, RM S106, FLINT, MICHIGAN 48502 (810) 766-7135 Fax (810) 766-7249 *

CITY OF FLINT

Department of Public Works

Dayne Walling
Mayor

Gerald Ambrose
Emergency Manager

Howard Croft
Director

TO: Flint City Residents

FROM: Howard Croft, DPW Director

RE: **Water Questions**

DATE: February 16, 2015

Over recent weeks the City of Flint has taken a number of measures to increase both the quality of water and the availability of information. Monthly Operating Reports are posted online approximately 15 days following the end of each month, a summary report is also posted with additional information of utility functions, and the City has increased the level of testing being performed on the water.

A nationally recognized vendor (Veolia North America) has been contracted to provide a detailed overview of City procedures and to make recommendations where they see areas of improvements.

The following questions and answers are provided for all interested parties, and are intended to provide transparent, detailed, and updated information that is pertinent to the City of Flint's water system.

City of Flint – Questions and Answers

Is it currently safe to drink City of Flint water?
Yes. Water from the City of Flint meets all of the EPA regulatory standards of the Safe Drinking water Act.

What can you say about the quality?
The City of Flint is committed to providing high quality drinking water to residents and businesses in the community, and has taken every precaution to ensure the water quality meets guidelines for safe drinking water. To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. In addition the Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. The City of Flint tap water meets the guidelines set by both entities.

What is considered to be a contaminant?
Contaminants that may be present in water include microbial contaminants such as viruses and bacteria, and inorganic contaminants such as salts and metals, which can occur naturally. Pesticides, herbicides, organic chemical contaminants and radioactive contaminants could also be present.

It's important to note that **drinking water, including bottled water** may reasonably be expected to contain at least small amounts of some contaminants. But the presence of contaminants does not necessarily indicate that the water poses a health risk.

Will these contaminants make people sick?
The EPA requires that every water report must contain language addressing the fact that some people have comprised immune systems or conditions that make them more vulnerable to contaminants in drinking water than the general population.
A few examples are, an individual with a compromised immune system such as someone undergoing chemotherapy or an organ transplant, a person with HIV/AIDs or other immune system disorders. Some elderly people and infants can be particularly at risk from infections. These individuals and parents of infants should seek advice from their health providers. It's important to understand that this is the case with all public drinking water. It's not unique to water from the Flint River.

How often does the City monitor water quality?
The City monitors its water on a daily basis to assure that water quality remains within established guidelines. With the variances in water temperature, and the leakage and infiltration problems arising due to failure of parts of the distribution system, water quality did exceed, for a time, some of the established guidelines. This resulted in the issuance of the recent notices to the public. Once it was learned that some guidelines were not being met, the City's immediate focus was to bring water quality back within guidelines. The efforts taken to address non-compliance included increasing water flow through valve replacements and hydrant flushing and optimizing treatment processes.

What were the causes of increased levels of bacteria (including fecal) levels that I read about? Have the causes been sufficiently addressed? If not what needs to be done to prevent this from happening again?
As is the case with most systems which treat surface water, many factors contributed to the

environment which allowed bacteria to proliferate. One of the main factors in our case is that when water travels through the 600 miles of the City's distribution mains it will, at times, in certain areas of the city, reside in the system for different periods of time. Water purchased from the Detroit Water & Sewage Department is drawn from Lake Huron, chlorinated, and then it travels over 60 miles to reach the City. By the time the water reaches Flint it is stable and capable of withstanding this type of residency time with the system. Water drawn from the Flint River, specifically in summer months when the temperature is fluctuating, is more susceptible to being impacted by variables such as high residency times and increased chemical reaction. Over the recent three months the residency time of water in the system has been reduced to approximately one week.

The Department of Environmental Quality (DEQ) requires that a minimum of 100 tests be performed monthly for chlorine residuals at various locations throughout the system. When residual levels are too low, it creates an environment in which bacteria such as fecal coliform can grow. After switching sources, we encountered testing sites in June 2014 that were consistently returning low residual levels. Several of these sites became areas that total coliform was eventually detected and ultimately "boil water" notices were issued. A significant cause of this is attributed to aged infrastructure which includes broken valves.

The necessary repairs and adjustments have been made to bring bacteria to acceptable levels with the exception of one test site -- the 2500 block of Flushing Road, where low residual levels continue. The City expects and is actively searching for valve issues. The engineering firm LAN & Potter Consulting is working to develop a hydraulic model of the distribution system and have the ability to use unidirectional flushing that will assist in addressing areas where residual levels are low.

The City has done internal testing recently that shows all eight sites currently well underneath the Maximum Contaminant Level and the next official testing date is due to the DEQ by March 1st, 2015.

It was recently announced in the news that Governor Snyder gave Flint $2 million to fix the water problems? Is this true?

Yes. Under the state's Financially Distressed Cities, Villages and Townships Grant Program, Flint was awarded $2 million to help address some of the problems associated with an aging water distribution system. While the City of Flint is very appreciative of the grant, it's going to take a substantially greater amount to fully address the improvements needed.

The grant will cover two significant projects, one, to decommission the incinerator that will result in ~$400,000 in savings annually to the sewer fund and two, a complete leak detection performed on all of the large transmission mains in the City that will reduce water loss, thereby creating a savings in the water fund.

This issue did not happen before the switch from Detroit water to Flint water. Why now?

Switching to the Flint River has highlighted underground inconsistencies in the distribution system that have existed for decades. Over the last few years, the City has engaged in the development of a more effective and consistent preventative maintenance program and a Capital Improvement Plan that will result in a more reliable water distribution center over time.

Was it known prior to the switch from Detroit water to Flint water that there would be problems managing certain bacteria levels?
It was understood that the Flint River would be subject to variations due to temperature changes, rain events and would have higher organic carbon levels than Lake Huron water and would be more difficulty to treat. These facts were presented to and weighed by licensed staff, LAN engineering consultants and the DEQ. It was determined that Flint has the equipment and the capacity to meet the demands of treating river water.

So in the majority of cases, it's safe to drink Flint tap water?
Yes, as safe it possibly can be. However if a person has a compromised immune system then he/she should consult with her/his physician first. It is also safe to bath and brush your teeth using the water.

What about the "hardness" of the water?
The Flint River is a harder water source than water drawn from Lake Huron. Hardness is classified as having a higher mineral content than "soft water", with the main concentration being calcium and magnesium. Water hardness is not considered by the EPA to be a health hazard.
Water hardness has been known to impact things such as cleaning tasks such as laundry, dishwashing, bathing personal grooming, and has also been associated with some forms of skin irritation such as eczema.

What are the public reporting requirements for these sorts of problems, and has the City met those requirements? What can be done to communicate useful information about a public health threat in timelier manner?

The EPA 2010 "Revised Public Notification Handbook" has a specific breakdown of the elements required in public notifications and includes usable templates. The EPA has three different tiers associated with community water systems (CWS), each with specific timeframes and requirements that trigger upon issuance of the violation.

- **Tier 1.** CWS must provide **public notification within 24 hours of a violation** and continue this as directed by the primary agency.
- **Tier 2.** CWS must provide **public notification within 30 days of a violation** and continue this every three months until the violation is resolved
- **Tier 3.** CWS must provide **public notification within one year** and the EPA recommends repeat occurrences be provided in an annual notice

The current violation is classified as a tier 2 violation and was issued December 16, 2014.

Besides the home notifications, where can I find official communications and any updates on the Flint water issue?
The City posts information on the City of Flint website at www.cityofflint.com. There is a special section dedicated to addressing Flint water concerns and providing up-to-the-minute updates. In

addition, updates can be found on Flint's Facebook page and citizens may also call the Flint Water Plant & Facilities at 810-787-6537 with questions.

If the water is ok to drink, why did GM stop using the water?

General Motors has been A great partner to the city for many years and when they recognized that an elevated level of chloride in the water was having an impact on a specific machining process they requested permission to transfer water delivery for that specific process to Flint Township. This represents only 10% of the water purchased and used by GM at the entire site. The remaining 90% of their water usage including all of the drinking water for GM employees is still purchased from the City of Flint.

Respectfully Submitted,

Howard D. Croft
Public Works Director

CITY OF FLINT

OFFICE OF THE EMERGENCY MANAGER

Gerald Ambrose
Emergency Manager

TO: Wayne Workman, Deputy Treasurer
Treasury Department
State of Michigan

FROM: Jerry Ambrose, Emergency Manager
City of Flint

DATE: March 3, 2015

As the Emergency Manager for the City of Flint, I am charged with restoring the City government to financial solvency, and working to assure that the City moves forward on a financially sustainable basis. The steps taken over the past three years have been difficult. Taxes and fees have been raised, services and workforce reduced, and ongoing costs, including legacy costs, have been constrained.

The current controversy surrounding the provision of water, and the path for resolution, has a potentially significant impact on the progress that is being made. I am satisfied that the water provided to Flint users today is within all MDEQ and EPA guidelines, as evidenced by the most recent water quality results conducted for MDEQ. We have a continuing commitment to maintain water safety and to improve water quality, and have dedicated resources to assure this commitment will be made.

The oft-repeated suggestion that the City should return to DWSD, even for a short period of time, would, in my judgment, have extremely negative financial consequences to the water system, and consequently to the rate payers. By the most conservative estimates, such a move would increase costs by at least $12 million annually, with that amount achieved only by eliminating virtually all budgeted improvements in the system. For a system with Unrestricted Assets of only $740,745, according to the June 30, 2014 audited financial statements, the only recourse within the City's control would be to increase revenues significantly. And in my judgment, that would come from raising rates for water by 30% or more . Further, changing the *source* of the city's water would not necessarily change any of the *aesthetics* of the water, including odor and discoloration, since those appear to be directly related to the aging pipes and other infrastructure that carry water from the treatment facility to our customers.

This direction of discussion also deviates from what, in my judgment, should be the focus: How can we not only operate and maintain a system to assure the delivery of safe and quality water dependably, but significantly reduce the cost of water and sewer to the users? At an average of $149 per month for water and sewer service for a residential user, the cost is extremely high in comparison to surrounding areas, as well as most areas across the state, and creates a significant financial burden for many users. In my judgment, we should all be concentrating on how to reduce rates by 50% or more. Unfortunately, there are no easy or evident answers, and continuation of the status will be an impediment to the sustainable recovery of the City of Flint. It is a conversation that I expect we will have with the recently created Water Quality Advisory Committee.

My reasoning for this conclusion is as follows:

One of the decisions made in the context of beginning to eliminate deficits and to restore financial stability to the City of Flint was to increase water and sewer rates significantly – the only choice available to financially stabilize a system that as of June 30, 2012, had a deficit of $8,758,091. Another was to leave DWDS for the KWA because it offered the opportunity to lower future rate increases. A third decision was to utilize the Flint River on an interim basis when DWSD unilaterally terminated the City's contract for water purchase. That decision was made because it also offered an immediate cost savings opportunity which translated into the ability to upgrade the Water Treatment Plant without having to seek financing. It was a reasonable decision because of our experience in using the river in a back-up capacity, including test runs on a quarterly basis for several decades.

Unfortunately, the switch to the river as a primary source was more challenging than anticipated, and the harsh winter of 2013-2014 resulted in much more damage to the aging water infrastructure than in previous years. The result was the issuance of required notices that water exceeded established guidelines for safety as it could affect certain vulnerable populations, and some users of the system experienced unpleasant odors and discoloration. Some users also appeared to have had some negative reactions to the new source of water. However, as soon as the test results were known, City staff took immediate actions to address the concerns. These actions are evidenced today by the fact that MDEQ has certified that our most recent testing shows water from all testing sites to be well within acceptable guidelines. Additionally, the City is continuing to taking the necessary actions to assure that the water supply remains safe and that water quality continues to improve.

As the City has moved to address the situation, the suggestion continues to be made that the City should re-engage with DWSD and purchase water at least until the KWA pipeline is supplying water. As evidenced by the most recent letter from DWSD, such a decision would immediately increase the City's cost by $846,700 per month, or $10,160,400 per year, just for the fixed cost portion of the price. The actual *purchase* of water would be an additional fee, and dependent upon

the quantity purchased. We estimate the actual water purchase cost to average more than $1 million per month, for a grand total of approximately $22 million per year. Finally, the DWSD offer is conditioned upon the City (or presumably the KWA) agreeing to negotiate a long term contract (30 years) for back-up.

The $22 million annual estimate of increased costs to purchase water from DWSD would be minimally offset by an approximate $3 million in reduced operating costs, and could be further offset by an additional $9 million, but only if all funding for capital improvements to the system are eliminated. To eliminate all funding dedicated to repairing, stabilizing, and improving the system would be totally irresponsible and would have long term negative consequences to the City and to future rate payers.

As you are aware we have recently brought in outside expert assistance to evaluate the steps we have taken to assure that the water is safe and to continue to improve water quality. We are expecting specific recommendations within the next few weeks, and are committed to implementing those recommendations in a timely manner. Many steps have already been taken. I am confident that implementing their recommendations will assure a continuing supply of safe water as well as improved quality, and at far less cost than re-engaging DWSD.

We have also created a 40-member Water Advisory Committee and a 13-member Technical Advisory Committee to assure two-way communication with the public and users of the system. Those committees will begin to meet this week, and we look forward to answering their questions and receiving their input.

It is unfortunate that problems and concerns with quality have arisen, and we are working every day to address the issues that caused them. Maintaining safe water and improving quality is a top priority as we work to make the City of Flint an attractive place to live, work, study, and play.

02/09/2015

UTILITITY WIDE WATER FUND PROFESSIONAL SERVICES
PERIOD ENDING 02/28/2015

ACCOUNT	DESCRIPTION	2014-15 AMENDED BUDGET	ACTIVITY FOR MONTH 02/28/2015	YTD BALANCE 02/28/2015	ENCUMBERED YEAR-TO-DATE	UNENCUMBERED BALANCE	% BDGT USED
Dept 536.100-Utilities - Water Administration							
Fund 591 - Water Fund							
801.000	**Professional Service**	2,320,000.00	50,418.75	537,844.65	348,549.88	1,433,605.47	38.21
	ROWE City Engineering			contract	$ 79,000.00		
	Dump Site Analysis			contract	$ 42,892.00		
	LAN Water Implementation			contract	$ 244,900.00		
	JFA /U.S. Dept Interior					$ 27,295.00	
	Raftelis Financial Update					$ 23,810.00	
	Bray Road					$ 500,000.00	
	TTHM Violation Letters/Mailings					$ 25,000.00	
	MDEQ Permit Fees					$ 100,000.00	
	Energy Costs/Performance Contracts					$ 250,000.00	
	Veolia Water Consultant					$ 40,000.00	
	City Works/Assest Management					$ 350,000.00	
	Operational Contingency					$ 117,500.00	
Total Dept 536.100-Utilities - Water Administration					$ 366,792.00	$ 1,433,605.00	
Dept 540.100-Water Service Center Management							
Fund 591 - Water Fund							
801.000	**Professional Service**	374,400.00	0.00	74,877.03	250,869.51	48,653.46	87.00
	Sewerlines Cty Engineering			contract	$ 190,000.00		
	Internal Investigations			contract	$ 95,645.22		
	Landfill Services					$ 12,500.00	
	Janitorial Services					$ 4,260.00	
	After Hours Water & Staking					$ 2,500.00	
	Line Stopping					$ 25,000.00	
					285,645.22	44,260.00	

Dept 540.202-Wsc-Water Distriburion Mains								
Fund 591 - Water Fund								
801.000	**Professional Service**	60,000.00	0.00	0.00	500.00		59,500.00	0.83
	Fire Extinguisher Services			contract	500.00			
					500.00			
		Balance is being used for budget adjustment to cover overruns for garage charges						
	Current gararge overruns is $100,000.00						**59,500.00**	
Dept 540.300-Capital Improvement								
Fund 591 - Water Fund								
801.000	**Professional Service**	2,660,000.00	0.00	0.00	60,000.00		2,600,000.00	2.26
	Water Meters			contract	60,000.00			
	Water Main Replacement Iroquois					$	2,500,000.00	
	Valve Exercising					$	100,000.00	
Total Dept 540.300-Capital Improvement					$ **60,000.00**	$	**2,600,000.00**	
Dept 545.200-Water Plant - Operations								
Fund 591 - Water Fund								
801.000	**Professional Service**	80,000.00	0.00	8,866.98	10,323.02		60,810.00	23.99
	Lab Testing			contract	10,323.02			
	Dam inspections					$	11,500.00	
	Comprehensive Reulatory Compliance					$	40,000.00	
	Lab Proficiency Testing					$	6,000.00	
	All Max Data Support					$	2,500.00	
Total Dept 545.200-Water Plant - Operations					$ **10,323.02**	$	**60,000.00**	
Dept 545.201-Water Plant Maintenance								
Fund 591 - Water Fund								
801.000	**Professional Service**	26,000.00	0.00	3,700.00	12,955.00		9,345.00	64.06
	Vibration Analysis			contract	$ 5,500.00			
	Elevator Inspections & Services			contract	$ 2,455.00			
	Diving for Dams Inspection			contract	$ 5,000.00			
	RPZ Inpsection & Repair					$	4,000.00	
	Generator Inspection & Services					$	5,000.00	
Total Dept 545.201-Water Plant Maintenance		26,000.00	0.00	3,700.00	$ **12,955.00**	$	**9,000.00**	64.06

Dept 545.300-Water Plant - Capital Improvements

Fund 591 - Water Fund

801.000	**Professional Service**	2,900,000.00	0.00	927,098.07		1,296,474.81	676,427.12	76.67
	Installation of Storage Tanks			contract	$	716,272.00		
	Motor Control Upgrade			contract	$	440,157.00		
	Easement- Electrical Grounding			contract	$	4,054.00		
	Lime Residual			contract	$	135,991.81		
	Cedar Street Pumpt Station						$ 500,000.00	
	Pump Station Feeder						$ 125,000.00	
	TTHM Operationial Evaluation						$ 50,000.00	
Total Dept 545.300-Water Plant - Capital Improvements		2,900,000.00	0.00		$	1,296,474.81	$ 675,000.00	76.67

Total	Budgeted	YTD Balance	Encumbered	Unencumbered
	$8,420,400.00	$1,552,386.73	$2,032,690.05	$4,821,865.00

WATER FUND EXPENSES

GL NUMBER	DESCRIPTION	2013-14 ACTIVITY	2014-15 AMENDED BUDGET	2015-16 APPROVED BUDGET	2015-16 BUDGET CHANGES FOR DWSD	2015-16 BUDGET CHANGES FOR DWSD	STATUS QUO REVISED 2015-16 BUDGET WITH DWSD	2015-16 BUDGET CHANGES WITH DWSD & ALL CAPITAL FUNDING ELIMINATED
Expenses - Water Fund								
Dept 536.100-Utilities - Water Administration								
	Wages and Fringes	$776,155	$528,777	$445,851			$445,851	
	Repairs and Improvements	$2,497,397	$2,320,000	$2,320,000		$0	$2,320,000	($2,320,000)
	Other Expenses	$2,795,410	$2,248,750	$2,248,750			$2,248,750	
Dept 540.100-Water Service Center Management								
	Wages and Fringes	$199,883	$228,451	$256,343			$256,343	
	Repairs and Improvements	$140,559	$374,400	$350,000		$0	$350,000	($350,000)
	Other Expenses	$106,780	$477,297	$547,649		$0	$547,649	
Dept 540.200-Wsc-Meter Reading - Water								
	Wages and Fringes	$439,351	$488,365	$481,316		$0	$481,316	
	Other Expenses	$151,894	$64,000	$64,000		$0	$64,000	
Dept 540.202-Wsc-Water Distribution Mains								
	Wages and Fringes	$2,383,598	$3,006,530	$3,024,627		$0	$3,024,627	
	Repairs and Improvements	$391	$60,000	$85,000		$0	$85,000	($85,000)
	Other	$1,210,718	$920,457	$849,500		$0	$849,500	
Dept 545.200-Water Plant - Operations								
	Wages and Fringes	$988,523	$1,827,003	$1,761,027	Staffing	($376,098)	$1,384,929	
	Repairs and Improvements	$48,723	$80,000	$60,000			$60,000	($60,000)
	Supplies, Utilities and Other	$22,779,389	$3,445,656	$3,318,656			$23,960,446	
					Fixed Charge DWSD	$10,160,400		
					Commodity Chg DWSD	$12,818,190		
					Chemical Purchase	($1,950,000)		
					Electrical Power	($850,000)		
Dept 545.202-Water Plant - Dam Operations		$119,216	$0	$0			$0	
Dept 545.203-Water Plant - Dam Maintenance		$126,623	$0	$0			$0	
Dept 545.300-Water Plant - Capital Improvements								
	Repairs and Improvements	$968,815	$2,900,000	$1,200,000			$1,200,000	($1,200,000)
	Other	$980,161	$3,700,000	$2,400,000			$2,400,000	
Dept 900.100-Cost Allocation and Retiree Healthcare		$3,111,662	$5,600,242	$6,077,577			$6,077,577	
Dept 966.103-PILOT Payment		$1,130,000	$1,130,000	$1,130,000			$1,130,000	
Dept 966.493-Debt Service		$2,638,071	$2,638,071	$2,638,071			$2,638,071	
Dept 540.300-Capital Improvement								
	Repairs and Improvements	$0	$2,660,000	$2,660,000			$2,660,000	($2,660,000)
	Other	$0	$530,000	$530,000			$530,000	
Dept 233.100-Purchasing	Wages and Fringes	$61,263	$0	$29,313			$29,313	
Dept 253.202-Bad Debt Expense		$161,939	$0	$0			$0	

Dept 536.206-Utilities - Water Cross Connection Prog		$100,314	$109,945	$108,182		$108,182		
Dept 545.201-Water Plant Maintenance								
	Wages and Fringes	$1,063,567	$1,147,846	$1,127,386		$1,127,386		
	Repairs and Improvements	$8,142	$26,000	$26,000		$26,000		($26,000)
	Other	$420,048	$675,249	$689,000		$689,000		
591-536.100-990.200	KWA Operation Payment	$0	$584,000	$584,000		$584,000		
	Reserve	$0		$2,873,750		$2,875,750		($2,873,750)
Total Expenses		**$44,210,032**	**$37,767,035**	**$37,886,000**	**$20,265,692**	**$58,151,692**		**$48,576,942**

WATER FUND REVENUES

GL NUMBER	DESCRIPTION	2013-14 ACTIVITY	2014-15 AMENDED BUDGET	2015-16 APPROVED BUDGET	2015-16 BUDGET CHANGES FOR DWSD	STATUS QUO REVISED 2015-16 BUDGET WITH DWSD	Inc.	2015-16 BUDGET CHANGES WITH DWSD & ALL CAPITAL FUNDING ELIMINATED	Inc.
Revenues- Water Fund									
	Meter Water Sales	$42,132,946	$37,000,000	$37,000,000	$20,265,692	$57,265,692	55%	$48,576,942	31%
	Other Revenues	$1,589,155	$886,000	$886,000	$0	$886,000		$886,000	
	Asset Sale	$3,493,743	$0	$0	$0	$0		$0	
	Carry Over	$0	$3,263,505	$0	$0	$0		$0	
Total Revenues		**$47,215,844**	**$41,149,505**	**$37,886,000**	**$20,265,692**	**$58,151,692**		**$48,576,942**	

From: Maxine Murray <mmurray@cityofflint.com>
Sent: Tuesday, April 14, 2015 2:54 PM
To: Kapp, Gene (MSP); Muchmore, Dennis (GOV); Roberts, John (DTMB); Dempkowski, Angela (Treasury); Baird, Richard (GOV); Carter, Jerry (MSP); Deasy, Thomas (MSP); Koryzno, Edward (Treasury); Clement, Elizabeth (GOV); Elizabeth Murphy; Etue, Kriste (MSP); Hollins, Harvey (GOV); Hill, Darryl (MSP); James Tolbert; Jerry Ambrose; Klotz, Josephine (MSP); Lee, Nichole (MSP); McGowan, Emmitt (MSP); Natasha Henderson; Smith, Paul (GOV); Byrne, Randall (Treasury); Sands, Thomas (MSP); Sipes, Stephen (MSP); O'Neill, Stephen (MSP); Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); West, Samantha (GOV)
Subject: Bi-Weekly Conference Call
Attachments: Agenda for Conference Call with Treasury 041515.xlsx; warer quality plan 4 14 15.pdf; Update & Transition Progress April 13 2015.pdf; Update & Transition Progress April 13 2015 Media Release.pdf

Good afternoon,

Please find attached the agenda for the 9:00 am conference call scheduled for **Wednesday, April 15, 2015.**

Thank you.

--
Maxine Murray
Executive Assistant to
Mayor Dayne Walling
Gerald Ambrose, Emergency Manager
Natasha L. Henderson, City Administrator
1101 S. Saginaw Street
Flint, MI 48502
810.237.2035 Telephone
810.766.7218 Fax

	A	B	C	D	E
1	**City of Flint Wednesday 9:00am Phone Conference Agenda**				
2	**April 15, 2015**		1-888-557-8511, Access code 3389106		
3			**Last Report**		**Status**
4	[redacted]				
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27	**5) Water Issues**				

	A	B	C	D	E
28		a) MDEQ Violation Notice	Water is within federal/state guidelines. Violation notice and water update mailed last week.		Complete
29		b) Drinking Water Revolving Fund	Order #2 was issued to restructure and amend the debt service payments on the DWRF Bonds, by postponing the principal payments. Funds to be used to finance GAC installation and other recommendations		Complete
30		c) Action plan on water quality	Action plan based on consultant's recommendations has been developed and shared with Council and advisory committees. Approval of contract for installation of granulated activated charcoal (GAC) filter (primary recommendation) received from Treasury.		Update
31					

[redacted]

City of Flint
Water Quality Implementation Plan

Item	Cost	Owner & Support	April				May				June					July				August					September			
			6	13	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	31	7	14	21	28
Clean Plate Settlers	N/A	F-1 / DPW	Staff																									
Repair Clarifier	$10,000	F-1 / DPW			Contractor																							
Chemical Dosing & Levels	TBD	F-1 / DPW					Staff / LAN																					
GAC Purchase & Installation	$1,600,000	LAN / DPW	Design/DEQ Approval				Procurement				Mobilization					Installation												
Watermain Leak Detection	$900,000	S-1 / DPW	RFP / Response				Contract				Mobilization					Performance / Repairs												
Hydraulic Model & Flushing Program	$173,700	LAN / DPW	Model being populated with field data																									
2 Miles of Pipe Replacement	$2,163,000	S-1 / DPW	RFP / Response				Contract Signing				Mobilization					Construction												
Total	$4,846,700																											

CITY OF FLINT

OFFICE OF THE EMERGENCY MANAGER

Gerald Ambrose
Emergency Manager

TO: Josh Freeman, President, Flint City Council

From: Jerry Ambrose, Emergency Manager

Cc: Flint City Council
Mayor Dayne Walling
Natasha L. Henderson, City Administrator

DATE: April 13, 2014

RE: Update and Transition Progress

Thank you for your consideration of my request for authorization to apply for the $7 million loan from the State's Emergency Loan Board. This loan, if approved, will be used to eliminate the City's General Fund deficit ahead of the schedule in our current Deficit Elimination/Reserve Accumulation Plan. This will enable the City to move forward with building adequate reserves necessary to foster financial stability. This, along with the commitments established in ordinance to develop and maintain a multi-year budget based on a strategic plan and to address the funding of long term liabilities, Flint's financial solvency can be sustainable.

Thank you also for your consideration of the proposed consolidation of the 68th and 67th District Court, an action which has been long in the making. Recommended by the State Court Administrators Office and authorized by state law, the consolidation is planned to become effective January 2, 2016. The Memorandum of Understanding, approved today by the Genesee County Board of Commissioners, details the advantages the consolidation will have for the City of Flint. The city will see a reduction in costs of more than $8.4 million over the first 10 years, providing some much needed funds to support police services. Additionally the new court division is assured of at least 2 probation officers, something which the Court has not had for several years. And, as provided in both law and the agreement, judges will continue to be elected from within the City.

As you know, my focus over the past few months has been and continues to be transitioning the City from oversight by an Emergency Manager to home rule under the guidance of a Receivership Transition Advisory Board.

Much progress has been made in preparing for the transition, including action by the City Council to complete the following:

- Final adoption of the Capital Improvements Plan
- Final adoption of ordinances regarding planning, budgeting, funds balance, and deficit elimination
- Update of the Strategic Plan's Vison, Mission, and Goals
- Adoption of budget priorities to guide development of the FY16/FY17 budget

Additionally, our new City Administrator Natasha Henderson is on board and is assuming duties as the experienced and professionally trained chief administrative officer for the City.

There are several issues which we are continuing to address, including:

- Water safety, quality, and affordability continues to be a top priority. The City's water supply today is safe, as measured by the same MDEQ standards that have been in place for years, and steps are being taken to improve treatment and distribution processes in order to address issues of discoloration and odor, and to assure continued safety. Reviews of our pricing structure are also underway to assure that customers are treated equitably while generating sufficient revenue to operate the system.

  Public safety continues to be an area of critical concern. The independent study of our police and fire organization provided a number of recommendations focused on how to best deploy the resources we have, and also confirmed that the staffing levels afforded by our limited resources are extremely low in comparison to comparable municipalities. This emphasizes the critical continuing importance of renewing the two voter-approved public safety millages and working to assure continuing state support through the assignment of state troopers and through financial support of the City lock-up. Loss of any of this support would be a disaster for the City.

- Achieving and then maintaining financial stability will continue to require constant attention. Approval of the ordinances regarding financial stability and the anticipated approval of the $7 million loan provide additional tools with which to work. Attention will need to be paid to not only developing and adopting budgets for FY16 and FY17 but doing so in the context of understanding the impact of those budgetary decisions into the following three years. Essential to this is making the budget decisions which truly address achievement of the stated vison, mission and goals for the City as adopted by the City Council. Unfortunately, the challenges in doing so will be great, as the City will continue to be faced with the reality of a structural deficit, where for the foreseeable future current expenditure patterns exceed revenue streams – a difficult position, given the City's already low level of services. Complicating this further is the potential impact of the retiree health care lawsuit, once the final outcome is decided.

- Finally progress continues with modernizing the operations of the City and setting the framework for future development. With the Master Plan and Capital Improvement Plan in place, focus is now turning to implementation, including updating the Zoning Ordinance.

As we move forward with preparing for transition, there is much work yet to do. Today I am taking three actions consistent with our path:

- Adoption of an updated purchasing policy – I am enacting the revisions to the Purchasing policy which were reviewed by Council within the past few months. These changes are made with the goal of assuring that the process of obtaining goods and services is consistent with the expectations of the Strategic Plan. There must be proper oversight and transparency, with a goal of obtaining goods and services that best meet the needs of City departments. The process must ensure competitive procurement, conducted in a timely and ethical manner. The City Council has an important role in assuring compliance with the policy, which is not the same as conducting purchasing operations.

- Confirming the role of the City Administrator – Before the search for a new City Administrator was begun, it was determined, within the context of the Seven Point Transition Plan, that an experienced and professional City Administrator would be selected on the basis of an open competitive process, and that the duties of the City Administrator would be structured in a manner which assures the ability to manage and direct the administrative affairs of the City in a professional manner. While those duties and expectations were described in the job description of the City Administrator and in recruitment materials, I am now formally enacting them in Emergency Manager Order Number 3.

- Re-establishing salaries for Mayor and Council – As we are moving towards transition, the duties and responsibilities of the Mayor and City Council are expanding towards the traditional roles of a City operating under home rule. Council meetings are now held twice per month, with committee meetings held once per month. The Mayor is now much more engaged in a Chief Executive role. Consequently, I have determined to re-establish the salaries for Mayor and Council at the levels in place immediately prior to the appointment of an Emergency Manager in November, 2011. Continued receipt of the re-established salaries, however, is contingent upon attainment of certain training. The re-established levels, and the contingency regarding training, is found in Emergency Manager Order Number 4.

Over the next several weeks, there will be much work with respect to finalizing the loan application and developing the FY16 and FY17 budgets along with FY18, FY19, and FY20 projections. Work will also continue with implementing improvements of the water system, and reviewing our associated rate structure. Evaluation and implementation of the recommendations for best use of

police and fire resources will continue, including corrective action for the police evidence room issues. Summer street maintenance and repair programs, as well as sidewalk repairs will soon be underway. Public meetings regarding the zoning ordinance are being held, with a recommended updated ordinance expected for consideration in late spring. A revision to the City's business licensing ordinance is expected soon. These are but a few of the many activities to be expected as the City makes the best use of its resources to provide the best level of service it can within the resources it has.

I look forward to working with you as we move towards transition to home rule under the guidance of a Receivership Transition Advisory Board. Please contact me if you have any questions.

EMERGENCY MANAGER
CITY OF FLINT
GENESEE COUNTY MICHIGAN

ORDER No. 3

CITY ADMINISTRATOR

BY THE POWER AND AUTHORITY VESTED IN THE EMERGENCY MANAGER ("EMERGENCY MANAGER") FOR THE CITY OF FLINT, MICHIGAN ("CITY") PURSUANT TO MICHIGAN'S PUBLIC ACT 436 OF 2012, LOCAL FINANCIAL STABILITY AND CHOICE ACT, ("PA 436"); GERALD AMBROSE, THE EMERGENCY MANAGER, ISSUES THE FOLLOWING ORDER:

Pursuant to PA 436, the Emergency Manager has broad powers in receivership to rectify the financial emergency and to assure the fiscal accountability of the City and its capacity to provide or cause to be provided necessary services essential to the public health, safety and welfare; and

Pursuant to PA 436, the Emergency Manager acts in place of local officials, specifically the Mayor and City Council, unless the Emergency Manager delegates specific authority; and

Pursuant to PA 436, the Emergency Manager has broad power to manage the local government, and may issue orders to elected and appointed officials necessary to accomplish the purpose of the Act. An Order issued under PA 436 is binding on the person to whom it is issued; and

IT IS HEREBY ORDERED:

The City Administrator shall serve as the City's Chief Administrative Officer at the pleasure of the Mayor, City Council and Emergency Manager or Receivership Advisory Transition Board (hereinafter "Board"), in accordance with the provisions of her contact with the City of Flint

dated February 23, 2015, and is charged with implementing executive and legislative directives and policies of the Mayor and City Council, subject to oversight of the Board, including strategic planning and budgeting, and with directing the management of day-to-day-administrative activities and appointed staff officials.

Consistent with the City Administrator Employment Agreement and Position Description, and subject to the approval and directives of the Board, the City Administrator shall have the following authority, duties and responsibilities notwithstanding any provision of the City Charter or Code of Ordinances:

1. Serve, advise and report to the Mayor with respect to the Mayor's executive functions, as set forth in Charter §4-101.

2. Serve and advise the Council with respect to the Council's legislative functions, as set forth in Charter §3-101.

3. Serve, advise and report to the Emergency Manager, as required by Public Act 436, so long as an Emergency Manager is in place.

4. Serve, advise and report to the Board, including:
    a. Advise and report to the Board as required by Public Act 436;
    b. Fully comply and assist the Board in meeting all duties assigned to it by the governor pursuant to MCL 141.1563(h);
    c. Provide all budgetary information requested by the Board;
    d. Serve as the primary contact between the Board and the City, including any department heads, officers, attorneys, accountants, employees, and any other contractors or consultants hired by the City to assist the City Administrator or the City in the discharge of powers, duties, functions, and responsibilities;
    e. Promptly and effectively communicate with the Board regarding any matter that may have a significant financial impact on the City.

5. Direct City department heads in carrying out the daily activities of the City, in the assembly of financial and management information; and in the gathering and assembly of pertinent data and information and recommendations for the Mayor and City Council's consideration in making executive determinations and policy.

6. Translate executive decisions and policies of the Mayor into administrative procedures for the cost effective and efficient operation of the City.

7. Implement legislative action of the City Council.

8. Monitor and manage the administrative inter-activity of the City departments so the delivery of public services represents an efficient, effective, and coordinated effort.

9. Interact with other governmental agencies as requested by the Mayor or City Council.

10. Prepare and review correspondence, reports, speeches, resolutions, and other material for public relations purposes. Answers citizen and official inquiries regarding City policy matters.

11. In consultation with the Mayor, direct the assembly of information and items for consideration by the Council, and provide them to the City Clerk for inclusion on the appropriate agendas.

12. Regularly consult with the Mayor in the development of actions with respect to the Mayor's executive functions, and with matters relating to the daily administrative functions of the City, including the evaluation of the performance of department heads, and the resolution of customer service issues.

13. Except to the extent prohibited by or in material conflict with applicable laws and authorities, the City Administrator or designee shall attend all meetings of the City Council, both public and closed, with the exception of those closed meetings devoted to the consideration of any action or lack of action on, or pursuant to, this Agreement, or any amendment thereto, or the City Administrator's evaluation. The City Administrator shall advise members, and make recommendations consistent with policy objectives, strategic planning and administrative activities.

14. Attend public meetings and events; give presentations and information to the public regarding matters of City business.

15. Manage and oversee all department heads, division heads, managers and non-elected City employees. This shall include an annual written performance evaluation of all department heads, including those identified in paragraphs 15, 16 and 17.

16. Recommend, subject to the Mayor's approval, the following appointments:

    a. Chief of Police;
    b. Fire Chief;
    c. Director of Finance;
    d. Planning & Development Director;
    e. Director of Department of Public Works;
    f. Chief Legal Officer;
    g. Chief Personnel Officer.

17. Recommend, subject to the Council's approval, the following appointments: City Clerk and City Auditor.

18. With the exception of those positions set forth in paragraphs 16 and 17, appoint all department heads, division heads and management positions, including the City Treasurer, Purchasing Director and the City Assessor, subject to any collective bargaining agreement(s) that may be applicable.

19. Ensure that all appointment processes, whether by the Mayor, Council or City Administrator, are open, competitive, and administered by the Human Resources Department or a qualified recruitment firm, with selection of the most qualified candidate to be based on defined education, experience, and professional standards appropriate to the position.

20. All appointments made pursuant to paragraphs 15, 16 and 17 shall serve at the pleasure of the City Administrator based on performance review.

21. Review current and potential litigation and labor disputes with the City Attorney and Mayor, and as needed the Board, and have complete decision making authority on behalf of the City, on all matters of litigation and labor disputes, including the ability to settle or initiate lawsuits and resolve labor disputes. The Mayor and City Council shall be consulted on such matters prior to implementation.

22. Negotiate all collective bargaining agreements on behalf of the City.

23. Work collaboratively with the City Council, the Mayor, other City or State officials and the Board to successfully transition to the termination of receivership for the City by supporting, implementing, and maintaining the financial and operating plans and the reforms instituted by the City's emergency managers, including but not limited to, the financial and operating plan for the city under Section II Act 436, and by providing appropriate training and explanation of City operations.

24. Serve as an official City representative before the Board, State departments and agencies, and the Michigan Legislature, with assistance from the Finance Director and the Mayor.

25. Be responsible for and vested with full authority necessary to effectively direct and supervise the day-to-day operations of the City by seeing that all laws and ordinances are faithfully executed, preparing the proposed annual budget as recommended by the Finance Director and any accounting firm retained by the City, and supervising the expenditures of all sums appropriated to and the attainment of all objectives established for departments of the executive branch of the City and working collaboratively with all officers and officials to effectively execute daily operations.

26. Ensure that a rolling six-year capital improvement plan is annually prepared in accordance with applicable law and the City's Code of Ordinances. Coordinate with the Mayor on the annual preparation of a rolling two-year budget

27. Review, approve and co-sign with the Mayor all contracts on behalf of and entered into by the City and modify or terminate any current contract with the City.

28. Approve all financial policies, City policies and procedures, job descriptions and personnel policies for the City, after consultation with the Mayor and City Council.

29. Designate check signers on all City bank accounts.

30. Refer City Council communications to the appropriate City employee or investigate such matter(s) and inform the City Council of the results of such efforts. Provided, however, when responding to City Council referrals, the City Administrator shall have discretion to utilize the personnel and resources the City Administrator deems reasonable and so as to avoid unnecessary interruption of services or incurrence of unnecessary costs.

31. Any investigation by the City Council, as contemplated by Charter §3-205 and §3-206, including the power to subpoena witnesses, shall be subject to the City Administrator's review and approval, so as to avoid unnecessary interruption of services or incurrence of unnecessary costs.

32. In the event the Mayor or Council fails to perform any duty or take any required action after having been afforded a reasonable opportunity to do so, the City Administrator may perform the duty or function of the Mayor or Council upon approval of the Board.

This Order may be amended, modified, repealed or terminated by any subsequent Order issued by the Emergency Manager.

Dated: 4/16/15 By: _____

Gerald Ambrose
Emergency Manager
City of Flint

xc: State of Michigan Department of Treasury
Mayor Dayne Walling
Flint City Council
Inez Brown, City Clerk

S:\P. Bade\EM2015\Orders\Order No.3 City Administrator 03.30.15.prob.docx

EMERGENCY MANAGER
CITY OF FLINT
GENESEE COUNTY MICHIGAN

ORDER No. 4

MAYOR/COUNCIL COMPENSATION

BY THE POWER AND AUTHORITY VESTED IN THE EMERGENCY MANAGER ("EMERGENCY MANAGER) FOR THE CITY OF FLINT, MICHIGAN ("CITY") PURSUANT TO MICHIGAN'S PUBLIC ACT 436 OF 2012, LOCAL FINANCIAL STABILITY AND CHOICE ACT, ("PA 436"); GERALD AMBROSE, THE EMERGENCY MANAGER, ISSUES THE FOLLOWING ORDER:

Pursuant to Public Act 436, the Emergency Manager has broad powers in receivership to rectify the financial emergency and to assure the fiscal accountability of the City of Flint and its capacity to provide or cause to be provided necessary services essential to the public health, safety and welfare; and

Pursuant to Public Act 436, the Emergency Manager acts in place of local officials, specifically the Mayor and City Council, unless the Emergency Manager delegates specific authority; and

Pursuant to Public Act 436, the Emergency Manager has broad power to manage the local government, and may issue Orders to elected and appointed officials necessary to accomplish the purpose of the Act; and

Pursuant to Public Act 436, City Council meetings are scheduled and conducted at the discretion of the Emergency Manager; and

An Order issued under PA 436 is binding on the person to whom it is issued; and

Prior to the appointment of Emergency Manager Michael Brown on December 1, 2011, Mayor Dayne Walling's annual compensation rate was $91,801; and

Prior to the appointment of Emergency Manager Michael Brown on December 1, 2011, Flint City Council President had an annual compensation rate of $20,856. City Council Vice President had an annual compensation rate of $20,381; and, City Councilmembers had an annual compensation rate of $19,907; and

As the City of Flint moves toward transition from governance and management by an Emergency Manager to Home Rule with oversight by a Receivership Transition Advisory Board, the responsibilities of the Mayor and Council are being increased, with the City Council now meeting regularly twice per month and Committees once per month

Mayor Walling's duties and responsibilities have increased and will further increase as the City of Flint progresses to local control; and

Mayor Walling has completed Level One of Michigan Municipal League (MML) core courses for municipal government and receipt of the MML Education Award, as required by Emergency Manager Order 2 dated April 18, 2011, and has otherwise accomplished the assigned tasks; and

Based on his increased duties, responsibilities and performance, Mayor Walling's salary is established at an annual compensation rate of $91,801, effective April 13, 2015; and

City Council's duties and responsibilities have increased and will further increase as the City of Flint progresses to local control; and

Based on increased duties, the annual compensation for the Flint City Council President shall be $20,856; the City Council Vice President shall be $20,381; and all other Council members shall be $19,907, effective April 13, 2015; provided however, that council members must have completed the Level One of Michigan Municipal League (MML) core courses for municipal government and received the MML Education Award by November 1, 2015, and as certified by the City Council President, or their annual compensation shall be reduced to $10,500 until such time as they have done so.

The compensation set forth above shall continue until the Local Officers Compensation Commission convenes to establish the compensation for the Mayor and Council in accordance with MCL 117.5c and Flint City Code, Chapter 2, Article III.

This Order is effective April 13, 2015.

This Order may be amended, modified, repealed or terminated by any subsequent Order issued by the Emergency Manager.

Dated: 4/16/15 By:

Gerald Ambrose
Emergency Manager
City of Flint

xc: State of Michigan Department of Treasury
Mayor Dayne Walling
Flint City Council
Inez Brown, City Clerk

ORDINANCE NO. 3865

An Ordinance to amend the City of Flint Code of Ordinances by amending Chapter 18, Taxation; Funds; Purchasing; Article IV, Purchases.

IT IS HEREBY ORDAINED BY THE PEOPLE OF THE CITY OF FLINT:

Sec. 1. That the Ordinances of the City of Flint shall be amended by amending Chapter 18, Taxation; Funds; Purchasing; Article IV, Purchases; by updating Sections 18-19 through 18-21.13; the renumbering of Section 18-21.14 to Section 18-21.20; and, the addition of new Sections 18-21.15 through 18-21.19, which shall read in its entirety as follows:

ARTICLE IV: PURCHASING

§ 18-18 SHORT TITLE.

This ordinance shall be known and may be cited as the "Purchasing Ordinance of the City of Flint."

§ 18-19 DEFINITIONS.

For ~~the~~ purposes of this article, the following terms, phrases, words, and their derivations shall have the meaning given ~~herein~~. When not inconsistent with the context, words used in the present tense include the future, words in the plural number include the singular number, and words in the singular number include the plural number. The word "shall" is always mandatory and not merely directory.

AGENCY. Any department, office, multiple member body or other organization of City government and includes any elective officer, appointee or person acting or purporting to act in the exercise of official duties, but shall not include the Board of Hospital Managers.

CHIEF EXECUTIVE. The Mayor of the City of Flint.

CITY. The City of Flint, Michigan.

CITY COUNCIL. The Council of the City of Flint.

CONTRACTUAL SERVICES. All telephone, gas, water, electric light and power service; towel and cleaning service; insurance; leases for all grounds, buildings, office or other space required by the agencies, with the exception of property under the control of the Housing Commission, Department of Community Development or any independent multiple member board established in accordance with the provisions of the **FLINT CITY** Charter; and the rental, repair or maintenance of equipment, machinery and other City owned personal property. The term shall not include professional and other contractual services ~~which~~ **THAT** have been proven to be unique and not subject to competition.

DIRECTOR. **The ~~Director of Purchases and Supplies~~ PURCHASING DIRECTOR AND/OR PURCHASING MANAGER.**

PROCUREMENT CARD.

SUPPLIES. All supplies, materials and equipment.

§ 18-20 ~~DIRECTOR OF PURCHASES AND SUPPLIES~~ PURCHASING DIRECTOR.

There is hereby created the position of **PURCHASING** Director ~~of Purchases and Supplies~~ who shall be a member of the Classified Service and shall be appointed by the ~~Mayor~~ **CITY ADMINISTRATOR** with the approval of the City Council. The **PURCHASING** Director shall perform all duties as provided ~~herein~~ **BY THIS ORDINANCE AND THE FLINT CITY CHARTER** under the direction of the ~~Mayor~~ **CITY ADMINISTRATOR** and shall perform ~~such~~ **ALL** other duties as may be prescribed by the ~~Mayor~~ **CITY ADMINISTRATOR.**

§ 18-21 DIRECTOR TO HAVE SUPERVISION OF PURCHASE AND DISTRIBUTION OF SUPPLIES, MATERIALS AND EQUIPMENT.

The Director of Purchases and Supplies shall have general supervision of the purchase and distribution of all supplies, materials and equipment and shall perform all duties required by law and shall have the powers and duties prescribed by this article.

§ 18-21.1 ADDITIONAL DUTIES AND RESPONSIBILITIES OF DIRECTOR.

The Director shall have the power and it shall be his duty:

(a) *Purchase or contract.* To purchase or contract for all supplies and contractual services needed by any agency in accordance with purchasing procedures as prescribed by this article and such rules and regulations as the Director shall adopt for the internal management and operation of the office of Director of Purchases and Supplies and such other rules and regulations as shall be prescribed by the Mayor as the purchasing functions related to executive staff offices and departments.

(1) *Exceptions prohibited.* The authority of the Director to negotiate all purchases for all agencies shall not be abridged by excepting by rule any particular agency.

(2) *Unauthorized purchases.* Except as herein provided, it shall be unlawful for any agency to order the purchase of any supplies or make any contract within the purview of this article other than through the Director and any purchase ordered or contract made contrary to the provisions hereof shall not be approved and the City shall not be bound thereby.

(b) *Other powers and duties.* In addition to the purchasing authority conferred in subsection (a) above and in addition to any other powers and duties conferred by this article, the Director shall:

(1) *Minimum expenditure.* Act to procure for the City the highest quality in supplies and contractual services at least expense to the City.

(2) *Encourage competition.* Discourage uniform bidding and endeavor to obtain as full and open competition as possible on all purchases and sales;

(3) *Purchasing analysis.* Keep informed of current developments in the field of purchasing, prices, market conditions and new products, and secure for the City the benefits of research done in the field of purchasing by other governmental jurisdictions, national technical societies, trade associations having national recognition, and by private businesses and organizations.

(4) *Forms.* Prescribe and maintain such forms as he shall find necessary to the operation of this article.

(5) *Standard nomenclature.* Prepare and adopt a standard purchasing nomenclature for agencies and suppliers.

(6) *Vendor's catalog file.* Prepare, adopt and maintain a vendor's catalog file.

(7) *Bulk purchases.* Exploit the possibilities of buying "in bulk" so as to take full advantage of discounts.

(8) *Tax exemptions.* So as to procure for the City all tax exemptions to which it is entitled.

(9) *Cooperation with Department of Finance.* Cooperate with the Department of Finance so as to secure for

the City the maximum efficiency in budgeting and accounting to the extent required by the Director of Finance.

(10) *Disqualification of bidders.* Have the authority, with the approval of the Mayor to declare vendors who default on the quotations or contracts irresponsible bidders and to disqualify them from receiving any business from the City for a stated period of time. Any vendor who feels himself aggrieved by the decision may, within ten (10) days of notification of such determination, make objections thereto, in writing, to the City Clerk. Within fifteen (15) days of the receipt of said notification, the City Council shall, after public hearing, make a final determination as to the disqualification of the vendor, which determination shall be final.

§ 18-21.2 REQUISITION AND ESTIMATES.

(a) *Requisitions or estimates.* All agencies, either by or with the authorization of the head of the department under which the agency operates, shall file with the Director detailed requisitions or estimates of their requirements in supplies and contractual services in such manner, at such times, and for such future periods as may be required for budgeting and accounting purposes.

(b) *Unforeseen requirements.* An agency shall not be prevented from filing, in the same manner, with the Director at any time a requisition or estimate for any supplies and contractual services, the need for which was not foreseen when the detailed estimates were filed.

§ 18-21.3 ENCUMBRANCE OF FUNDS.

Except in cases of emergency, the Director shall not issue any order for delivery on a contract or open market purchase until the Chief Finance Officer shall have certified, after pre-audit, that there is to the credit of the agency concerned a sufficient unencumbered appropriation balance, in excess of all unpaid obligations, to defray the amount of such order.

(a) Vendor information shall be furnished on a monthly basis to City Council.

The Director shall furnish to the Council by the fifteenth day of each month a list of all vendors, with or without a contract, to whom money was owed as of the last day of the preceding month. In addition to the name of each vendor the list shall contain each vendor's address, and, as of the last day of the preceding month, the total amount of money owed to each vendor, and how much of the amount owed each vendor has been due for more than 30 days and more than 60 days.

A violation of this ordinance is considered a misdemeanor, punishable by a $500.00 fine, and/or 90 days in jail.

§ 18-21.4 COMPETITIVE BIDDING REQUIRED.

All purchases of supplies, contractual services, or sales of personal property which is unsuitable for continued use, except as specifically provided herein, shall be based wherever possible on competitive bids.

§ 18-21.5 FORMAL CONTRACT PROCEDURE.

All supplies and contractual services, except as otherwise provided herein, when the estimated cost thereof shall exceed $3,000.00 shall be purchased by written contract or purchase order from the lowest responsible bidder, after due notice inviting proposals; and no purchase in excess of $3,000.00 shall be made by the Director and/or Manager, except upon the approval of the City Council. In the event that purchases made without City Council approval from any one supplier exceed $3,000.00 in any fiscal year, City Council shall be informed of such in writing by the Director of Purchases and/or Purchasing Manager. All sales of personal property with an estimated value in excess of $3,000.00 shall be

sold by written contract or bill of sale to the highest responsible bidder, after due notice inviting proposals.

(a) *Notice inviting bids.*

(1) *Electronic media and/or newspaper.*

a. Notices inviting bids/proposals shall be published at least five (5) days preceding the last day set for the receipt of proposals on the City of Flint website, any electronic media service, or at least one newspaper of general circulation in the City, if funding is available.

b. *Scope of notice.* The electronic media and/or newspaper notice required herein shall include a general description of the articles to be purchased or sold, shall state where bid blanks and specifications may be secured, and the time and place for opening bids.

(2) *Bidder's list.* The Director and/or Manager shall also solicit sealed bids from all responsible prospective suppliers who have requested their names be added to a "bidders list," which the Director and/or Manager shall maintain by directing prospective suppliers to the available electronic media source or by sending them a copy of such newspaper notice or such other notice as will acquaint them with the proposed purchase or sale. In any case, invitations sent to the vendors on the bidders' list shall be limited to commodities that are similar in character and ordinarily handled by the trade group to which the invitations are sent.

(b) *Bid deposits.* When deemed necessary by the Director and/or Manager, bid deposits shall be prescribed in the public notice inviting bids. Unsuccessful bidders shall be entitled to return of bid deposits upon award of the contract. A successful bidder shall forfeit any bid deposit required by the Director and/or Manager upon failure on his part to enter a contract within ten (10) days after the award.

(c) *Bid opening procedure.*

(1) *Sealed.* All bids and proposals shall be submitted via either the electronic media source or in a sealed envelope to the Director and/or Manager and shall be identified as such electronic means or on the face of the envelope.

(2) *Opening.* Bids shall be opened in public at the time and place stated in the public notices and shall be witnessed by the City Clerk's designee.

(3) *Tabulation.* A tabulation of all bids received shall be available for public inspection.

(d) *Rejection of bids.*

(1) The Director and/or Manager shall have the authority to reject any bids, or any part thereof, when the public interest shall be served thereby; provided, however, that in such event the public interest shall be clearly stated in the notice of rejection.

(2) *Bidders in default to City.* The Director and/or Manager shall not knowingly accept a bid from a contractor who is in default on the payment of taxes, licenses or other monies due the City. Contracts with bidders who are found to have been in default at the time of award of the contract shall be voidable.

(e) *Award of contract.*

(1) *Authority of the Director and/or Manager.* The Director and/or Manager shall have the authority to award

~~contracts within the purview of this article, subject to the approval of the City Council.~~

~~(2) *Lowest responsible bidder.* Contracts shall be awarded to the lowest responsible bidder. In determining the "lowest responsible bidder," in addition to price, the Director and/or Manager shall consider the following factors, among others:~~

~~a. The ability, capacity and skill of the bidder to perform the contract or provide the services required;~~

~~b. Whether the bidder can perform the contract or provide the service promptly, or within the time specified, without delay or interference;~~

~~c. The character, integrity, reputation, judgment, experience and efficiency of the bidder in business;~~

~~d. The quality of performance of previous contracts or services~~

~~e. The previous and existing compliance by the bidder with laws and ordinances relating to the contract or services;~~

~~f. The sufficiency of the financial resources and ability of the bidder to perform the contract or provide the services;~~

~~g. The quality, availability and adaptability of the supplies, or contractual services, to the particular use required;~~

~~h. The ability of the bidder to provide future maintenance and service for the use of the subject of the contract;~~

~~i. The number and scope of conditions attached to the bid;~~

~~j. Compliance with the City's affirmative action program;~~

~~k. Other factors involved. A contract may be awarded to a bidder based on factors other than the lowest bid, including but not limited to the bidder's competence, reliability and/or skills; provided that the Director and/or Manager submits a report detailing such factors to City Council subject to its approval.~~

~~(f) *Award to other than the low bidder.* From the bidders so determined to be responsible, the Director and/or Manager shall award the contract to the lowest such bidder; provided, that in determining the lowest bid, the Director and/or Manager shall consider the bona fide business location of the bidder. If the lowest responsible bidder is not located within the City limits of Flint, and the lowest bid of the responsible bidders located within the City limits of Flint does not exceed that of the lowest nonlocal bidder by more than seven percent (7%), then the Director and/or Manager may determine said lowest local bidder to be the lowest responsible bidder, and make the award to such local bidder accordingly, subject to the approval of the City Council. Additionally, if the lowest responsible bidder is not located within the limits of the City of Flint, and the lowest bid of the responsible bidder located within the County of Genesee does not exceed the bid of the lowest nonlocal bidder by more than three and one half percent (3.5%), then the Director and/or Manager may determine said lowest Genesee County bidder to be the lowest responsible bidder, and make the award to such Genesee County bidder accordingly, subject to the approval of the City Council.~~

(g) *Irresponsible bidder; statement required.* When bidders are determined not to be responsible bidders and their bids would have been lower than the bid actually awarded, a full and complete statement of the reason for such determination shall be prepared by the Director and/or Manager and filed with the other papers relating to the transactions.

(h) *Performance bonds.* The Director and/or Manager shall, in his discretion, have the authority to require either a performance bond, cash deposit or surety, before entering a contract, in such amount as he shall find reasonably necessary to protect the best interests of the City.

(i) *Unique services.* Professional or personnel contractual services which have been proven to be unique and not subject to the requirements of the competitive bidding process in excess of $2,000.00 cumulative for a fiscal year shall require City Council approval unless otherwise provided by the Charter or other law.

(j) *Prohibition against subdivision.* No contract or purchase order shall be subdivided to void the requirements of this section.

(k) *Termination of contract.* No contract or purchase which was made or awarded with the approval of the City Council may be terminated by the Director and/or Manager or any other member of the Executive Branch without first obtaining the approval of City Council for such termination.

§ 18-21.6 OPEN MARKET PROCEDURE.

All purchases of supplies, contractual services, or sales of personal property which is unsuitable for continued use, which has an estimated value of less than three thousand five hundred dollars ($3,500.00), may be made in the open market, without proper advertisement and without observing the procedure prescribed in § 18-21.5 for the award of formal contracts.

(a) *Minimum number of bids.* All open market purchases shall, whenever feasible, be based on at least three (3) competitive bids, and shall be awarded to the lowest responsible bidder in accordance with the standards set forth in § 18-21.5(e)(2).

(b) *Notice inviting bids.* The Director shall solicit bids by:

(1) Direct mail request to prospective vendors; or

(2) By telephone; or

(3) By public notice posted on the bulletin boards of the City Hall.

(c) *Recording.* The Director shall keep a record of all open market orders and the bids submitted in competition thereon, and such records shall also be open to public inspection.

§ 18-21.7 PETTY EXPENDITURES REVOLVING FUND.

Petty cash funds may be established within any agency with the approval of the Director of Finance. From this fund shall be paid all purchases not in excess of $100.00 each, made by the heads of agencies for incidentals, with the approval of the Director. The Director shall promulgate rules and regulations for use of the petty expenditures revolving fund.

§ 18-21.8 CENTRAL WAREHOUSING; STOREROOM'S REVOLVING FUND.

(a) *Administration.* The Director shall control and supervise storerooms and warehouses and shall administer the storeroom's revolving fund.

(b) *Storeroom's revolving fund.* There is hereby created a storeroom's revolving fund.

(1) *Accounting procedure.* Requisitions from supplies, in a storeroom or warehouse shall be credited by the Director to the storeroom's

revolving fund by a charge against the appropriation of the using agency.

(2) *Inventory.* The Director shall maintain a perpetual inventory record of all materials, supplies or equipment stored in storerooms and warehouses.

§ 18-21.9 PRICE AGREEMENT CONTRACT PROCEDURE.

The head of the agency shall have the authority to submit requisitions to the Director for supplies available under the terms of a price agreement.

§ 18-21.10 EMERGENCY PURCHASES.

(a) *Emergency defined.* For the purpose of this section only, an *EMERGENCY* constitutes a situation that threatens the public health, safety or welfare, and:

(1) Is unforeseeable;

(2) Calls for immediate action; and

(3) Cannot be responded to using established procurement methods.

(b) *By Director and/or Manager.* In case of an emergency that requires the immediate purchase of supplies or contractual services, the Director and/or Manager shall be empowered to secure by open market procedure and at the lowest obtainable price, any supplies or contractual service:

(1) Without City Council approval for amounts not exceeding $10,000.00 per vendor during a six (6) month period;

(2) With City Council approval for amounts exceeding $10,000.00 per vendor during a six (6) month period.

(3) Recorded explanation. The Director and/or Manager shall immediately file a report explaining the circumstances of an emergency purchase with the City Clerk to be entered into the minutes of the City Council and remain open to public inspection.

(c) *By head of department.* In case of an emergency which may result in the loss of:

(1) *Life.* The head of any agency may purchase directly any supplies or services necessary under the circumstances then in existence; or

(2) *Property.* The head of any agency may purchase directly only those supplies or services not to exceed $10,000.00 during a six (6) month period without the prior approval of City Council.

(d) *Violation.* Any person in violation of making an unauthorized expenditure as outlined in this section shall be guilty of a misdemeanor punishable by a $500.00 fine and/or ninety (90) days in jail upon conviction of the Court.

§ 18-21.11 INSPECTION AND TESTING.

The Director may inspect, or supervise the inspection of all deliveries of supplies or contractual services to determine their conformance with the specifications set forth in the order or contract.

(a) *Inspection by agency.* The Director shall have the authority to authorize agencies having the staff and facilities for adequate inspection to inspect all deliveries made to such agencies under rules and regulations which the Director shall prescribe.

(b) *Tests.* The Director shall have the authority to require chemical and physical tests of samples of deliveries which are necessary to determine their quality and conformance with the specifications. In the performance of such tests, the Director shall have the authority to make use

~~of laboratory facilities of any agency of the City government or of any outside laboratory.~~

~~§ 18-21.12 SURPLUS SUPPLIES.~~

~~All using agencies shall submit to the Director, at such times and in such form as he shall prescribe, an inventory of all supplies which are no longer used or which have become obsolete.~~

~~(a) *Transfer.* The Director shall have the authority to transfer surplus supplies to other agencies.~~

~~(b) *Sale.* The Director shall have the authority to sell all supplies which have become unsuitable for public use, or to exchange the same for, or trade in the same on, new supplies.~~

~~(1) *Competitive bidding.* Sales under this section shall be made to the highest responsible bidder and in conformance with §§ 18-21.5 or 18-21.6 hereof whichever is applicable.~~

~~§ 18-21.13 COOPERATIVE PURCHASING.~~

~~The Director shall have the authority to join with other units of government in cooperative purchasing plans when the best interests of the City would be served thereby.~~

§ 18-21 PURPOSE AND SCOPE.

THE VISION FOR THE CITY IS A WELL-MANAGED, FINANCIALLY STABLE, AND ACCOUNTABLE GOVERNMENT FOCUSED ON CREATING AND MAINTAINING A VIBRANT AND GROWING COMMUNITY THAT WILL ATTRACT AND RETAIN RESIDENTS, BUSINESSES, STUDENTS AND VISITORS AND IMPROVE QUALITY OF LIFE. THE CITY'S MISSION IS TO ASSURE THAT RESIDENTS, BUSINESSES, STUDENTS AND VISITORS RECEIVE MUNICIPAL SERVICES IN A CUSTOMER FRIENDLY AND FINANCIALLY RESPONSIBLE MANNER.

STRUCTURING CITY OPERATIONS TO ACHIEVE THIS MISSION AND VISION HAVE REQUIRED THE ESTABLISHMENT OF LONG RANGE STRATEGIC PLANNING AND BUDGETING. EQUALLY IMPORTANT IS ESTABLISHING THE PRINCIPLES BY WHICH GOODS AND SERVICES WILL BE OBTAINED.

THE PROCESS OF OBTAINING GOODS AND SERVICES MUST BE CONSISTENT WITH THE STRATEGIC PLAN. THERE MUST BE PROPER OVERSIGHT AND TRANSPARENCY, WITH A GOAL OF OBTAINING THE GOODS AND SERVICES THAT BEST MEET THE NEEDS OF CITY DEPARTMENTS. THE PROCESS MUST ENSURE COMPETITIVE PROCUREMENT CONDUCTED IN AN ETHICAL AND TIMELY MANNER IN ORDER FOR THE CITY TO CARRY OUT ITS DUTIES. USE OF CITY RESOURCES FOR PERSONAL USE IS GROUNDS FOR TERMINATION OF EMPLOYMENT AND POSSIBLE CRIMINAL PROSECUTION.

PURCHASING GOODS AND SERVICES SUPPORTS THE BUSINESSES AND COMMUNITIES IN WHICH THE BUSINESSES RESIDE. ACCORDINGLY, WHEN FEASIBLE, IN TERMS OF QUALITY, COST, AND ACCESSIBILITY, THE CITY SHOULD MAKE GOOD FAITH EFFORTS TO PROCURE GOODS AND SERVICES FROM BUSINESSES WITH A PHYSICAL LOCATION WITHIN THE CITY LIMITS, AND IF NOT ABLE TO DO SO, TO MAKE SIMILAR EFFORTS WITH RESPECT TO BUSINESSES PHYSICALLY LOCATED IN GENESEE COUNTY AND/OR SURROUNDING COMMUNITIES.

§ 18-21.1 ASSIGNMENT OF RESPONSIBILITY.

THE FLINT CITY COUNCIL SHALL BE RESPONSIBLE FOR PERIODICALLY REVIEWING AND UPDATING THIS ORDINANCE, FOR MONITORING PURCHASING ACTIVITIES AS DESCRIBED WITHIN THIS ORDINANCE, AND APPROVING PURCHASES AS DESCRIBED WITHIN THIS ORDINANCE TO ASSURE THAT GOODS AND SERVICES OBTAINED BEST MEET THE NEEDS OF CITY DEPARTMENTS AND ARE OBTAINED IN A COMPETITIVE, TRANSPARENT, ETHICAL AND TIMELY MANNER THAT PERMITS THE CITY TO CARRY OUT ITS DUTIES.

THE MAYOR SHALL BE RESPONSIBLE FOR EXECUTIVE OVERSIGHT OF THE PURCHASING OF ALL GOODS AND SERVICES FOR THE CITY, FOR APPROVING PURCHASES AS PROVIDED IN THIS ORDINANCE, AND FOR ASSURING THAT CITY COUNCIL IS PROVIDED TIMELY INFORMATION TO ENABLE IT TO CARRY OUT ITS OVERSIGHT RESPONSIBILITIES.

THE CITY ADMINISTRATOR SHALL PROVIDE ADMINISTRATIVE OVERSIGHT OF THE PURCHASING FUNCTION, FOR APPROVING PURCHASES AS PROVIDED IN THIS ORDINANCE, AND FOR PROVIDING THE CITY COUNCIL TIMELY INFORMATION TO ENABLE IT TO CARRY OUT ITS OVERSIGHT RESPONSIBILITIES.

THE FINANCE DIRECTOR SHALL SUPERVISE THE ACTIVITIES OF THE PURCHASING DIRECTOR, AND SHALL WORK WITH THE PURCHASING DIRECTOR, DEPARTMENT HEADS AND OTHERS TO ASSURE THAT PROPER BUDGETARY AUTHORITY EXISTS FOR THE PURCHASE OF GOODS AND SERVICES.

THE PURCHASING DIRECTOR SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF ALL GOODS AND SERVICES FOR THE CITY UNLESS OTHERWISE PROVIDED IN THIS ORDINANCE. THE PURCHASING DIRECTOR SHALL ASSURE THAT ALL GOODS AND SERVICES ARE OBTAINED IN A COMPETITIVE AND ETHICAL MANNER AND IN COMPLIANCE WITH THE PROCESSES ESTABLISHED IN THIS ORDINANCE. THE PURCHASING DIRECTOR SHALL ALSO APPROVE PURCHASES AS PROVIDED IN THIS ORDINANCE. THE PURCHASING DIRECTOR SHALL ALSO DEVELOP AND RECOMMEND TO THE MAYOR THE APPROPRIATE PROCESSES AND PROCEDURES TO MEET THE REQUIREMENTS OF THIS ARTICLE.

DEPARTMENT HEADS AND PERSONNEL DESIGNATED BY DEPARTMENT HEADS SHALL HAVE THE AUTHORITY TO OBTAIN GOODS AND SERVICES AS AUTHORIZED IN THIS ARTICLE. THE DESIGNATED PERSONNEL SHALL ALSO PROVIDE THE PURCHASING DIRECTOR WITH THE INFORMATION NEEDED TO ASSURE THAT THE GOODS AND SERVICES TO BE OBTAINED ARE IN THE BEST INTERESTS OF THE CITY.

ALL PERSONS WHO ARE AUTHORIZED TO PURCHASE GOODS AND SERVICES FOR THE CITY SHALL BE RESPONSIBLE FOR ASSURING THAT PURCHASES MADE IN THE BEST INTERESTS OF THE CITY, ARE OBTAINED ON A COMPETITIVE BASIS AS REQUIRED BY THIS ARTICLE, AND ARE DONE IN AN ETHICAL MANNER.

§ 18-21.2 DELEGATION OF AUTHORITY.

THERE MUST BE PROPER OVERSIGHT AND TRANSPARENCY WITH RESPECT TO THE PURCHASE OF

GOODS AND SERVICES, WITH A GOAL OF OBTAINING GOODS AND SERVICES THAT BEST MEET THE NEEDS OF CITY DEPARTMENTS. THE PROCESS MUST ENSURE COMPETITIVE PROCUREMENT CONDUCTED IN A TIMELY AND ETHICAL MANNER IN ORDER FOR THE CITY TO CARRY OUT ITS DUTIES. ALL PARTIES DELEGATED AUTHORITY WITH RESPECT TO ALL PURCHASES OF GOODS AND SERVICES ARE CHARGED WITH THE RESPONSIBILITY OF MAKING PURCHASES IN A COMPETITIVE AND ETHICAL MATTER, AND FOR ADHERING IN ALL RESPECTS TO THE CITY OF FLINT CODE OF CONDUCT POLICY.

THE AUTHORITY WITH RESPECT TO THE PURCHASE OF ALL GOODS AND SERVICES IS DELEGATED AS PROVIDED HEREIN:

DEPARTMENT HEADS AND EMPLOYEES SPECIFICALLY DESIGNATED BY DEPARTMENT HEADS, AND APPROVED BY THE PURCHASING DIRECTOR, SHALL BE ELIGIBLE TO BE ISSUED PROCUREMENT CARDS, AND ARE AUTHORIZED TO PURCHASE GOODS AND SERVICES FOR CITY PURPOSES, PROVIDED FUNDS ARE APPROPRIATELY BUDGETED AND THAT THE DEPARTMENT HEAD OR DESIGNATED EMPLOYEE FORMALLY AGREE TO ALL PROVISIONS REGARDING THE USE AND RECONCILEMENT OF THE CARDS, AS PRESCRIBED BY THE PURCHASING DIRECTOR. THE AMOUNT OF GOODS AND SERVICES PURCHASED IN ONE MONTH MAY NOT EXCEED $10,000, UNLESS SPECIFIC AUTHORIZATION IS APPROVED BY THE FINANCE DIRECTOR, CITY ADMINISTRATOR, AND MAYOR UPON THE RECOMMENDATION OF THE PURCHASING DIRECTOR. THE PURCHASING DIRECTOR MAY SUSPEND USE OF PROCUREMENT CARDS FOR FAILURE TO FOLLOW ESTABLISHED PROCESSES AND PROTOCOLS. USE OF PROCUREMENT CARDS FOR PERSONAL OR OTHER NON-CITY USE IS A VIOLATION OF THE CITY'S CODE OF CONDUCT POLICY AND MAY BE GROUNDS FOR TERMINATION AND POSSIBLE CRIMINAL PROSECUTION.

DEPARTMENT HEADS AND EMPLOYEES AUTHORIZED BY DEPARTMENT HEADS MAY REQUEST THE PURCHASE OF GOODS AND SERVICES BY FILING A PROPERLY COMPLETED REQUISITION WITH THE PURCHASING DIRECTOR. UPON RECEIPT OF THE REQUISITION, AND DOCUMENTATION THAT FUNDS HAVE BEEN PROPERLY BUDGETED, THE PURCHASING DIRECTOR SHALL CAUSE THE SOLICITATION OF REQUESTS FOR THE PURCHASE OF THE GOODS AND SERVICES TO BE MADE, FOLLOWING THE APPROPRIATE PROCESSES.

THE PURCHASING DIRECTOR SHALL ADHERE TO THE FORMAT OF THE SELECTED PROCESS AS DETAILED IN THE FOLLOWING SECTIONS:

§ 18-21.3 COMPETITIVE SEALED BIDDING.

(1) *CONDITIONS FOR USE.* ALL PROCUREMENT REQUESTS FOR THE CITY SHALL BE AWARDED BY THE USE OF COMPETITIVE SEALED BIDDING EXCEPT AS OTHERWISE PROVIDED IN SECTIONS 18-21.4 (COMPETITIVE SEALED PROPOSALS), 18-21.5 (QUALIFICATIONS BASED SELECTION), 18-21.6 (SMALL PURCHASES), 18-21.7 (PUBLIC ENTITY PROCUREMENTS), 18-21.8 (SOLE SOURCE PROCUREMENT), AND 18-21.9 (EMERGENCY PROCUREMENTS), OF THIS ARTICLE.

(2) *INVITATION FOR BIDS.* AN INVITATION FOR BIDS SHALL BE ISSUED AND SHALL INCLUDE SPECIFICATIONS AND ALL CONTRACTUAL TERMS AND CONDITIONS APPLICABLE TO THE PROCUREMENT.

(3) *PUBLIC NOTICE.* ADEQUATE PUBLIC NOTICE OF THE INVITATION FOR BIDS SHALL BE GIVEN NOT LESS THAN TEN (10) CALENDAR DAYS PRIOR TO THE DATE SET FORTH FOR THE OPENING OF BIDS. THE NOTICE MAY INCLUDE PUBLICATION ON THE CITY'S WEBSITE, ANY ELECTRONIC MEDIA SERVICE, OR NEWSPAPER OF GENERAL CIRCULATION WITHIN TEN (10) DAYS PRIOR TO BID OPENING. THE PUBLIC NOTICE SHALL STATE THE PLACE, DATE, AND TIME OF BID OPENING.

(4) *BID OPENING.* BIDS MAY BE OPENED PUBLICLY IN THE PRESENCE OF ONE OR MORE WITNESSES AT THE TIME AND PLACE DESIGNATED OR RECORDED AND PUBLISHED IN AN ELECTRONIC INVITATION FOR BIDS MANAGEMENT SYSTEM. THE AMOUNT OF EACH BID, AND ALL OTHER RELEVANT INFORMATION, AS THE PURCHASING DIRECTOR DEEMS APPROPRIATE, TOGETHER WITH THE NAME OF EACH BIDDER SHALL BE RECORDED. THE RECORD AND EACH BID SHALL BE OPEN TO THE PUBLIC.

(5) *BID ACCEPTANCE AND BID EVALUATION.* BIDS SHALL BE UNCONDITIONALLY ACCEPTED WITHOUT ALTERATION OR CORRECTION, EXCEPT AS AUTHORIZED HEREIN. BIDS SHALL BE EVALUATED BASED ON THE REQUIREMENTS SET FORTH IN THE INVITATION FOR BIDS, WHICH MAY INCLUDE CRITERIA TO DETERMINE ACCEPTABILITY SUCH AS INSPECTION, TESTING, QUALITY, WORKMANSHIP, DELIVERY, AND SUITABILITY FOR A PARTICULAR PURPOSE. THOSE CRITERIA THAT WILL AFFECT THE BID PRICE AND BE CONSIDERED IN THE EVALUATION FOR AWARD SHALL BE OBJECTIVELY MEASURABLE, SUCH AS DISCOUNTS, TRANSPORTATION COSTS, AND TOTAL OR LIFE CYCLE COSTS. THE INVITATION FOR BIDS SHALL SET FORTH THE EVALUATION CRITERIA TO BE USED.

(6) *CORRECTION OR WITHDRAWAL OF BIDS; CANCELLATION OF AWARDS.* CORRECTIONS OR WITHDRAWAL OF INADVERTENTLY ERRONEOUS BIDS BEFORE OR AFTER BID OPENING, OR CANCELLATION OF AWARDS OR CONTRACTS BASED ON BID MISTAKES, MAY BE PERMITTED WHERE APPROPRIATE. MISTAKES DISCOVERED BEFORE BID OPENING MAY BE MODIFIED OR WITHDRAWN BY WRITTEN OR ELECTRONIC NOTICE RECEIVED IN THE OFFICE DESIGNATED IN THE INVITATION FOR BIDS PRIOR TO THE DEADLINE FOR SUBMISSION OF THE BID.

(7) *LOCAL PREFERENCE.* FROM THE BIDDERS DETERMINED TO BE RESPONSIBLE, THE PURCHASING DIRECTOR, IN CONSULTATION WITH THE DEPARTMENT HEAD REQUESTING THE GOODS OR SERVICES, SHALL DETERMINE THE RECOMMENDED BID AWARD. FROM AMONG THE RESPONSIBLE BIDDERS, THE RECOMMENDED AWARD SHALL BE TO THE LOWEST BIDDER; PROVIDED, THAT IN DETERMINING THE LOWEST BID, THE PURCHASING DIRECTOR SHALL CONSIDER THE BONA FIDE BUSINESS LOCATION OF THE BIDDER. IF THE LOWEST RESPONSIBLE BIDDER IS NOT LOCATED WITHIN THE CITY LIMITS, AND THE LOWEST BID OF THE RESPONSIBLE BIDDERS LOCATED

WITHIN THE CITY LIMITS DOES NOT EXCEED THAT OF THE LOWEST NON-LOCAL BIDDER BY MORE THAN SEVEN PERCENT (7%), THEN THE PURCHASING DIRECTOR SHALL BE ALLOWED TO REQUEST THE LOWEST LOCAL VENDOR MATCH THE PRICE OFFERED BY THE LOWEST NON-LOCAL VENDOR. ADDITIONALLY, IF THE LOWEST RESPONSIBLE BIDDER IS NOT LOCATED WITHIN THE CITY LIMITS, AND THE LOWEST BID OF THE RESPONSIBLE BIDDER LOCATED WITHIN GENESEE COUNTY DOES NOT EXCEED THE BID OF THE LOWEST NON-LOCAL BIDDER BY MORE THAN THREE AND ONE-HALF PERCENT (3.5%), THEN THE PURCHASING DIRECTOR SHALL BE ALLOWED TO REQUEST THE LOWEST LOCAL VENDOR MATCH THE PRICE OFFERED BY THE LOWEST NON-LOCAL VENDOR.

(8) *APPROVAL THRESHOLDS.* THE PURCHASING DIRECTOR, IN CONSULTATION WITH THE DEPARTMENT HEAD SHALL JOINTLY RECOMMEND THE AWARD OF A BID UNDER THIS SECTION. IF THE BID AWARD IS LESS THAN $20,000, THE DECISION OF THE PURCHASING DIRECTOR SHALL BE FINAL. IF THE RECOMMENDED BID AWARD IS IN EXCESS OF $20,000, IT SHALL ALSO BE APPROVED BY THE FINANCE DIRECTOR; IF IN EXCESS OF $30,000, IT SHALL ALSO BE APPROVED BY THE CITY ADMINISTRATOR; AND, IF IN EXCESS OF $50,000, IT SHALL ALSO BE APPROVED BY THE MAYOR. ANY RECOMMENDED BID AWARDS IN EXCESS OF $75,000 SHALL ALSO BE APPROVED BY THE CITY COUNCIL.

(9) *ADJUSTMENTS TO NEGOTIATED AWARDS.* IN THE EVENT THE SUCCESSFUL BIDDER WAS FOR A PROJECT THAT EXCEEDS AVAILABLE FUNDS AS CERTIFIED BY THE FINANCE DIRECTOR, THE PURCHASING DIRECTOR IS AUTHORIZED, WHEN TIME OR ECONOMIC CONSIDERATIONS PRECLUDE RE-SOLICITATION OF WORK OF A REDUCED SCOPE, TO NEGOTIATE AN ADJUSTMENT OF THE BID PRICE WITH THE LOWEST RESPONSIBLE BIDDER, IN ORDER TO BRING THE BID WITHIN THE AMOUNT OF AVAILABLE FUNDS. ANY NEGOTIATED ADJUSTMENT SHALL BE BASED ONLY UPON ELIMINATING INDEPENDENT DEDUCTIVE ITEMS SPECIFIED IN THE INVITATION FOR BIDS.

(10) *MULTI-STEP SEALED BIDDING.* WHEN IT IS CONSIDERED IMPRACTICAL TO INITIALLY PREPARE A PURCHASE DESCRIPTION TO SUPPORT AN AWARD BASED ON PRICE, AN INVITATION FOR QUALIFICATIONS MAY BE ISSUED REQUESTING THE SUBMISSION OF UN-PRICED OFFERS TO BE FOLLOWED BY AN INVITATION FOR BIDS LIMITED TO THOSE BIDDERS WHOSE OFFERS HAVE BEEN DETERMINED TO BE TECHNICALLY ACCEPTABLE UNDER THE CRITERIA SET FORTH IN THE FIRST SOLICITATION.

§ 18-21.4 COMPETITIVE SEALED PROPOSALS.

(1) *CONDITIONS FOR USE.* WHEN THE PURCHASING DIRECTOR DETERMINES THAT THE USE OF COMPETITIVE SEALED BIDDING IS EITHER NOT PRACTICABLE OR NOT ADVANTAGEOUS TO THE CITY, A CONTRACT FOR THE PURCHASE OF GOODS OR SERVICES MAY BE ENTERED INTO BY USE OF THE COMPETITIVE SEALED PROPOSALS METHOD.

(2) *REQUEST FOR PROPOSALS.* PROPOSALS SHALL BE SOLICITED THROUGH A WRITTEN AND

PUBLICALLY NOTICED REQUEST FOR PROPOSALS FORMAT.

(3) *PUBLIC NOTICE.* ADEQUATE PUBLIC NOTICE OF THE REQUEST FOR PROPOSALS SHALL BE GIVEN IN THE SAME MANNER AS PROVIDED IN SECTION 18-21.3(3) (COMPETITIVE SEALED BIDDING, PUBLIC NOTICE). THE PURCHASING DIRECTOR WILL DETERMINE THE AMOUNT OF TIME IN WHICH REQUESTS WILL BE SOLICITED.

(4) *RECEIPT OF PROPOSALS.* PROPOSALS SHALL BE PREPARED CONTAINING THE NAME OF EACH RESPONDENT, THE NUMBER OF MODIFICATIONS RECEIVED, IF ANY, AND A DESCRIPTION SUFFICIENT TO IDENTIFY THE ITEM OFFERED. THE PROPOSALS SHALL BE OPEN FOR PUBLIC INSPECTION ONLY AFTER BEING PUBLISHED.

(5) *DISCLOSURE OF RESPONDENTS, CONTENTS.* THE CONTENTS OF ANY PROPOSAL SHALL NOT BE DISCLOSED TO COMPETING RESPONDENTS UNTIL AFTER BEING PUBLISHED.

(6) *EVALUATION FACTORS.* THE REQUEST FOR PROPOSALS SHALL STATE THE RELATIVE IMPORTANCE OF PRICE AND OTHER EVALUATION FACTORS.

(7) *DISCUSSION WITH RESPONSIBLE RESPONDENTS AND REVISIONS TO PROPOSALS.* AS PROVIDED IN THE REQUEST FOR PROPOSALS, DISCUSSIONS MAY BE CONDUCTED WITH RESPONSIBLE RESPONDENTS WHO SUBMIT PROPOSALS DETERMINED TO BE REASONABLY SUSCEPTIBLE OF BEING SELECTED FOR AWARD FOR THE PURPOSE OF CLARIFICATION TO ASSURE FULL UNDERSTANDING OF, AND CONFORMANCE TO, THE SOLICITATION REQUIREMENTS. RESPONDENTS WHO SUBMITTED PROPOSALS DETERMINED TO BE REASONABLY SUSCEPTIBLE OF BEING SELECTED FOR AWARD SHALL BE ACCORDED FAIR AND EQUAL TREATMENT WITH RESPECT TO ANY OPPORTUNITY FOR DISCUSSION AND REVISION OF PROPOSALS, AND REVISIONS MAY BE PERMITTED AFTER SUBMISSIONS AND PRIOR TO AWARD FOR THE PURPOSE OF OBTAINING BEST AND FINAL OFFERS.

(8) *LOCAL PREFERENCE.* UNLESS THE FUNDING SOURCE FOR THE CONTRACT PROHIBITS SUCH PREFERENCES, THE PREFERENCE FOR LOCAL VENDORS AS OUTLINED IN SECTION 18-21.3(7) SHALL BE CONSIDERED.

(9) *APPROVAL THRESHOLDS.* THE PURCHASING DIRECTOR, IN CONSULTATION WITH THE DEPARTMENT HEAD, SHALL EVALUATE THE PROPOSALS AND RECOMMEND AWARD OF THE CONTRACT UNDER THIS SECTION. IF THE RECOMMENDED AWARD IS FOR LESS THAN $20,000, THE DECISION OF THE PURCHASING DIRECTOR SHALL BE FINAL. IF THE RECOMMENDED AWARD IS IN EXCESS OF $20,000, IT SHALL ALSO BE APPROVED BY THE FINANCE DIRECTOR; IF IN EXCESS OF $30,000, IT SHALL ALSO BE APPROVED BY THE CITY ADMINISTRATOR; AND, IF IN EXCESS OF $50,000, IT SHALL ALSO BE APPROVED BY THE MAYOR. ANY RECOMMENDED AWARD IN EXCESS OF $75,000 SHALL ALSO BE APPROVED BY THE CITY COUNCIL.

§ 18-21.5 QUALIFICATIONS BASED SELECTION.

(1) *CONDITIONS FOR USE.* THE PURCHASING DIRECTOR MAY DETERMINE, WHEN REQUISITIONS HAVE BEEN RECEIVED, THAT PRE-QUALIFYING VENDORS FOR CONSIDERATION IS IN THE BEST INTERESTS OF THE CITY.

(2) IN SUCH CASE, THE PURCHASING DIRECTOR, IN CONSULTATION WITH THE DEPARTMENT HEAD, SHALL DEVELOP A REQUEST FOR QUALIFICATIONS THAT WILL DEFINE THE REQUEST TO BE SOUGHT AND THE NECESSARY QUALIFICATIONS A QUALIFIED RESPONDING ENTITY MUST HAVE IN ORDER TO BE QUALIFIED TO RESPOND TO A PROPOSAL REQUEST.

(3) *PUBLIC NOTICE.* ADEQUATE PUBLIC NOTICE OF THE REQUEST FOR QUALIFICATIONS SHALL BE GIVEN IN THE SAME MANNER AS PROVIDED IN SECTION 18-21.3(3) (COMPETITIVE SEALED BIDDING, PUBLIC NOTICE).

(4) *RECEIPT OF QUALIFICATIONS.* A REGISTER OF QUALIFICATIONS SHALL BE PREPARED CONTAINING THE NAME AND QUALIFICATIONS OF EACH RESPONDENT. THE REGISTER OF QUALIFICATIONS SHALL BE OPEN FOR PUBLIC INSPECTION ONLY AFTER READ PUBLICLY.

(5) *EVALUATION OF SUBMISSIONS.* THE PURCHASING DIRECTOR, IN CONSULTATION WITH THE DEPARTMENT HEAD, SHALL EVALUATE THE QUALIFICATIONS OF THE RESPONDENT AND SHALL PREPARE A LIST OF RESPONDENTS DESIGNATED AS QUALIFIED. THE PURCHASING DIRECTOR SHALL ALSO PREPARE AND MAINTAIN A LIST OF RESPONDENTS NOT DESIGNATED AS PRE-QUALIFIED, IDENTIFYING THE REASONS WHY THEY WERE NOT DESIGNATED AS PRE-QUALIFIED.

(6) THE PURCHASING DIRECTOR WILL CAUSE TO BE PREPARED A REQUEST FOR COMPETITIVE SEALED PROPOSALS AS PROVIDED IN SECTION 18-21.1, AND ISSUED TO THE QUALIFIED RESPONDENTS.

§ 18-21.6 SMALL PURCHASES.

AS PROVIDED IN THIS ARTICLE, DEPARTMENT HEADS AND SPECIFICALLY DESIGNATED EMPLOYEES MAY BE ISSUED PROCUREMENT CARDS AND MAY PURCHASE GOODS AND SERVICES NOT EXCEEDING $10,000 PER MONTH. THE PURCHASES SHALL NOT BE ARTIFICIALLY DIVIDED SO AS TO CONSTITUTE A SMALL PURCHASE UNDER THIS SECTION.

FOR PURCHASES UNDER $10,000 PER MONTH, INCLUDING PURCHASES UTILIZING PROCUREMENT CARDS, THE DEPARTMENT HEAD AND AUTHORIZED EMPLOYEE SHALL, TO THE EXTENT POSSIBLE AND PRACTICAL AND IN THE BEST INTERESTS OF THE CITY, SOLICIT COMPETITIVE QUOTATIONS TO PROVIDE THE GOODS OR SERVICES SOUGHT. WHEN POSSIBLE AND PRACTICAL, A MINIMUM OF THREE (3) WRITTEN QUOTATIONS AND COPIES OF ALL QUOTATIONS SHALL BE PROVIDED TO THE PURCHASING DIRECTOR FOR SMALL PURCHASE REQUESTS. IN THE ABSENCE OF SUFFICIENT WRITTEN QUOTATIONS, THE PURCHASING DIRECTOR MAY ELECT TO SOLICIT ADDITIONAL QUOTATIONS. THEY SHALL ALSO GIVE CONSIDERATION, WHERE POSSIBLE AND PRACTICAL, TO BUSINESSES WITH A PHYSICAL LOCATION WITHIN THE CITY, OR IF

NOT POSSIBLE, WITHIN GENESEE COUNTY.

THE PURCHASING DIRECTOR MAY ASSESS THESE PURCHASES AS TO THE FEASIBILITY OF FUTURE FORMAL COMPETITIVE PROCESSES FOR THE GOODS AND SERVICES BEING PROCURED IN THIS MANNER.

§ 18-21.7 PUBLIC ENTITY PURCHASES.

THE PURCHASING DIRECTOR IS AUTHORIZED, IF DETERMINED TO BE IN THE BEST INTERESTS OF THE CITY, TO PURCHASE GOODS AND SERVICES FOR THE CITY, RELYING ON COMPETITIVE PROCESSES UNDERTAKEN BY OTHER PUBLIC ENTITIES, INCLUDING THE FEDERAL GOVERNMENT, THE STATE OF MICHIGAN, MUNICIPALITIES, SPECIAL PURPOSE DISTRICTS AND AUTHORITIES, AND SCHOOL DISTRICTS.

THE PURCHASING DIRECTOR MAY APPROVE OR RECOMMEND THE APPROVAL OF A CONTRACT WITH THE VENDOR WHO HAS A CONTRACT WITH ANOTHER PUBLIC ENTITY FOR GOODS OR SERVICES THAT THE CITY WOULD LIKE TO PURCHASE, IF AT A MINIMUM:

(1) THE CONTRACT IS FOR THE SAME GOODS, SERVICES, OR CONSTRUCTION AND AT THE SAME PRICE, TERMS, AND CONDITIONS AS ARE IN THE CONTRACT WITH THE OTHER PUBLIC ENTITY; AND,

(2) THE CONTRACT BETWEEN THE PERSON AND THE OTHER PUBLIC ENTITY WAS AWARDED IN A MANNER CONSISTENT WITH PROCUREMENT BEST PRACTICES AS DETERMINED BY THE PURCHASING DIRECTOR.

§ 18-21.8 SOLE SOURCE PURCHASES.

A PURCHASE ORDER AGREEMENT OR FORMAL WRITTEN CONTRACT FOR THE PURCHASE OF GOODS AND SERVICES MAY BE AWARDED IN THE DISCRETION OF THE PURCHASING DIRECTOR, WITHOUT A FORMAL COMPETITIVE PROCESS WHEN, AFTER CONDUCTING A GOOD FAITH REVIEW OF AVAILABLE SOURCES AND EXISTING EQUIPMENT, THE PURCHASING DIRECTOR DETERMINES THAT:

(1) THERE IS ONLY ONE SOURCE FOR THE REQUIRED SUPPLY, SERVICE, OR CONSTRUCTION ITEM; OR

(2) THE CHOSEN SOURCE IS THE BEST CHOICE IN THE INTERESTS OF EQUIPMENT STANDARDIZATION AND EFFICIENT OPERATIONS. THE PURCHASING DIRECTOR, IN CONSULTATION WITH THE DEPARTMENT HEAD, SHALL OBTAIN A FORMAL PROPOSAL FROM THE VENDOR SPECIFIC TO THE NEEDED GOODS AND SERVICES, AND SHALL MAKE ALL GOOD FAITH EFFORTS TO SECURE A PRICE THAT IS IN THE BEST INTERESTS OF THE CITY. THE REQUESTING DEPARTMENT SHALL PRODUCE A WRITTEN EVALUATION OF THE PROPOSED SOLE SOURCE PURCHASE, DETAILING THE RATIONALE FOR THE RECOMMENDATION.

(3) THE PURCHASE FOLLOWS THE REQUIREMENTS FOR APPROVAL THRESHOLDS

OF § 18-21.3 COMPETITIVE SEALED BIDDING - SECTION (8) AND § 18-21.4 COMPETITIVE SEALED PROPOSALS - SECTION (9).

§ 18-21.9 EMERGENCY PURCHASES.

NOTWITHSTANDING ANY OTHER PROVISION OF THESE REGULATIONS, THE PURCHASING DIRECTOR MAY MAKE OR AUTHORIZE OTHERS TO MAKE EMERGENCY PURCHASES OF SUPPLIES, SERVICES, OR CONSTRUCTION ITEMS WHEN THERE EXISTS A THREAT TO PUBLIC HEALTH, WELFARE, OR SAFETY; PROVIDED THAT THE EMERGENCY PROCUREMENTS SHALL BE MADE WITH SUCH COMPETITION AS IS PRACTICABLE UNDER THE CIRCUMSTANCES. THE REQUESTING DEPARTMENT SHALL PRODUCE A WRITTEN RATIONALE OF THE CIRCUMSTANCES SURROUNDING THE NEED FOR AN EMERGENCY PURCHASE, THE COST, AND ANY EFFORTS MADE TO SECURE COMPETITIVE PRICES.

IF THE AUTHORIZED PURCHASE IS FOR LESS THAN $20,000, THE DECISION OF THE PURCHASING DIRECTOR SHALL BE FINAL, AND A NOTATION WILL BE MADE IN THE ELECTRONIC RECORD KEEPING FOR THE PURCHASE REQUEST. IF TIME PERMITS, THE PURCHASE SHOULD FOLLOW THE REQUIREMENTS FOR APPROVAL THRESHOLDS OF § 18-21.3 COMPETITIVE SEALED BIDDING - SECTION (8) AND § 18-21.4 COMPETITIVE SEALED PROPOSALS - SECTION (9).

§ 18-21.10 REPORTING AND ACCOUNTABILITY.

THE PURCHASING DIRECTOR, ON A MONTHLY BASIS, SHALL PREPARE A REPORT THAT PROVIDES TOTAL EXPENDITURES WITH SPECIFIC VENDORS TO DATE THAT HAVE EXCEEDED A TOTAL OF $10,000.00. THIS REPORT SHALL INCLUDE THE PURCHASE ORDER NUMBER, THE AMOUNT OF THE PURCHASE, THE DEPARTMENT REQUESTING THE GOODS AND SERVICES, AND A DESCRIPTION OF THE GOODS AND SERVICES.

THE REPORT SHALL BE MADE PUBLICALLY AVAILABLE VIA ELECTRONIC MEANS ON A MONTHLY BASIS. THE PURCHASING DIRECTOR SHALL BE AVAILABLE TO REVIEW THE REPORT AND PROVIDE ADDITIONAL INFORMATION AS MAY BE REQUESTED BY THE CITY COUNCIL, OR THEIR DESIGNATED COMMITTEE.

§ 18-21.11 CONTRACTS.

WHERE FINAL AGREEMENT FOR THE PURCHASE OF GOODS OR SERVICES REQUIRES A CONTRACT BINDING THE CITY, OTHER THAN THE ISSUANCE OF A PURCHASE ORDER OR USE OF A PROCUREMENT CARD, THE AGREEMENT MUST BE APPROVED BY THE CITY ATTORNEY BEFORE PRESENTING IT TO THE PERSON AUTHORIZED TO BIND THE CITY.

A MODIFICATION OF A CONTRACT MUST BE APPROVED IN THE SAME MANNER THAT THE CONTRACT WAS APPROVED. ALL CONTRACT MODIFICATIONS MUST BE IN WRITING AND APPROVED IN ADVANCE BY THE CITY ATTORNEY.

DEPARTMENT HEADS ARE RESPONSIBLE FOR MONITORING THE TERMS OF ANY AGREEMENT APPROVED FOR GOODS AND SERVICES FOR THEIR AREA OF RESPONSIBILITY. THE PURCHASING DIRECTOR AND DEPARTMENT HEADS SHALL ASSURE

THAT A CONTRACT ADMINISTRATION SYSTEM IS DESIGNED AND IMPLEMENTED TO ENSURE THAT A CONTRACTOR IS PERFORMING IN ACCORDANCE WITH THE SOLICITATION UNDER WHICH THE CONTRACT WAS AWARDED AND THE TERMS AND CONDITIONS OF THE CONTRACT, AND THAT THE DEPARTMENT IS IN COMPLIANCE WITH ALL REQUIREMENTS OF ANY APPLICABLE GRANTS.

§ 18-21.12 DUE DILIGENCE.

AS PART OF THE EVALUATION OF ANY VENDOR PROPOSING TO DO BUSINESS WITH THE CITY, THE PURCHASING DIRECTOR OR DESIGNEE MAY, AT REASONABLE TIMES, INSPECT THE PART OF THE PLANT, PLACE OF BUSINESS, OR WORKSITE OF A CONTRACTOR OR SUBCONTRACTOR AT ANY TIER THAT IS PERTINENT TO THE PERFORMANCE OF ANY CONTRACT AWARDED, OR TO BE AWARDED, BY THE CITY.

THE CITY MAY ALSO, AT REASONABLE TIMES AND PLACES, AUDIT THE BOOKS AND RECORDS OF ANY CONTRACTOR WHO HAS SUBMITTED COST OR PRICING DATA AS A PART OF ITS BID OR PROPOSAL, TO THE EXTENT THAT THE BOOKS, DOCUMENTS, PAPER, AND RECORDS ARE PERTINENT TO THE COST OR PRICING DATA FOR THREE (3) YEARS FROM THE DATE OF FINAL PAYMENT UNDER THE CONTRACT.

§ 18-21.13 REPORTING OF ANTICOMPETITIVE PRACTICES.

WHEN FOR ANY REASON COLLUSION OR OTHER ANTICOMPETITIVE PRACTICES ARE SUSPECTED AMONG ANY BIDDERS OR RESPONDENTS, A NOTICE OF THE RELEVANT FACTS SHALL BE TRANSMITTED TO THE CITY ATTORNEY'S OFFICE.

§ 18-21.14 DEBARMENT OR SUSPENSION.

THE PURCHASING DIRECTOR, WITH THE CONSENT OF THE CITY ATTORNEY AND THE APPROVAL OF THE MAYOR AND CITY COUNCIL, IS AUTHORIZED TO DEBAR A PERSON FOR CAUSE FROM CONSIDERATION FOR AWARD OF CONTRACTS. THE DEBARMENT SHALL BE FOR A PERIOD OF NOT MORE THAN THREE (3) YEARS. AFTER CONSULTATION WITH THE CITY ATTORNEY, THE PURCHASING DIRECTOR IS AUTHORIZED TO SUSPEND A PERSON FROM CONSIDERATION FOR AWARD OF CONTRACTS IF THERE IS PROBABLE CAUSE TO BELIEVE THAT THE PERSON HAS ENGAGED IN ANY ACTIVITY THAT MIGHT LEAD TO DEBARMENT. THE SUSPENSION SHALL BE FOR A PERIOD NOT TO EXCEED THREE (3) YEARS. THE CAUSES FOR DEBARMENT INCLUDE:

(1) CONVICTION FOR COMMISSION OF A CRIMINAL OFFENSE AS AN INCIDENT TO OBTAINING OR ATTEMPTING TO OBTAIN A PUBLIC OR PRIVATE CONTRACT OR SUBCONTRACT, OR IN THE PERFORMANCE OF THE CONTRACT OR SUBCONTRACT;

(2) CONVICTION UNDER STATE OR FEDERAL STATUTES OF EMBEZZLEMENT, THEFT, FORGERY, BRIBERY, FALSIFICATION OR DESTRUCTION OF RECORDS, RECEIVING STOLEN PROPERTY, OR ANY OTHER OFFENSE INDICATING A LACK OF BUSINESS INTEGRITY OR BUSINESS HONESTY THAT

CURRENTLY, SERIOUSLY, AND DIRECTLY AFFECTS RESPONSIBILITY AS A CITY CONTRACTOR;

(3) CONVICTION UNDER STATE OR FEDERAL ANTITRUST STATUTES ARISING OUT OF THE SUBMISSION OF BIDS OR PROPOSALS;

(4) VIOLATION OF CONTRACT PROVISIONS, AS SET FORTH BELOW, OF A CHARACTER THAT IS REGARDED BY THE PURCHASING DIRECTOR TO BE SO SERIOUS AS TO JUSTIFY DEBARMENT ACTION:

(A) DELIBERATE FAILURE, WITHOUT GOOD CAUSE, TO PERFORM IN ACCORDANCE WITH THE SPECIFICATIONS OR WITHIN THE TIME LIMIT PROVIDED IN THE CONTRACT; OR

(B) A RECENT RECORD OF FAILURE TO PERFORM, OR OF UNSATISFACTORY PERFORMANCE, IN ACCORDANCE WITH THE TERMS OF ONE OR MORE CONTRACTS; PROVIDED THAT FAILURE TO PERFORM OR UNSATISFACTORY PERFORMANCE CAUSED BY ACTS BEYOND THE CONTROL OF THE CONTRACTOR SHALL NOT BE CONSIDERED TO BE A BASIS FOR DEBARMENT;

(5) ANY OTHER CAUSE THE PURCHASING DIRECTOR DETERMINES TO BE SO SERIOUS AND COMPELLING AS TO AFFECT RESPONSIBILITY AS A CITY CONTRACTOR, INCLUDING DEBARMENT BY ANOTHER GOVERNMENTAL ENTITY FOR ANY CAUSE LISTED IN THESE REGULATIONS; AND

(6) FOR VIOLATION OF THE ETHICAL STANDARDS AS SET FORTH IN THE CITY OF FLINT CODE OF CONDUCT POLICY.

THE PURCHASING DIRECTOR SHALL ISSUE A WRITTEN DECISION TO DEBAR OR SUSPEND. THE DECISION SHALL STATE THE REASONS FOR THE ACTION TAKEN AND INFORM THE DEBARRED OR SUSPENDED PERSON INVOLVED OF THEIR RIGHTS CONCERNING JUDICIAL OR ADMINISTRATIVE REVIEW. ANY PERSON RECOMMENDED TO BE DEBARRED PURSUANT TO THIS SECTION SHALL BE GIVEN ADVANCE WRITTEN NOTICE AND SHALL BE AFFORDED THE RIGHT TO CONTEST THE RECOMMENDATION BEFORE THE CITY COUNCIL.

§ 18-21.15 BID PROTESTS.

(1) *RIGHT TO PROTEST.* ANY ACTUAL OR PROSPECTIVE BIDDER, RESPONDENT, OR CONTRACTOR WHO IS AGGRIEVED IN CONNECTION WITH THE SOLICITATION OR AWARD OF A PURCHASE ORDER AGREEMENT OR CONTRACT MAY PROTEST THE ACTION TO THE CITY.

(2) *PROCESS FOR FILING A PROTEST.* A PROTEST WITH RESPECT TO AN INVITATION FOR BIDS OR REQUEST FOR PROPOSALS MUST BE SUBMITTED IN WRITING TO THE PURCHASING DIRECTOR. THE PROTEST MUST BE ENTITLED "BID PROTEST" AND MUST CLEARLY

IDENTIFY THE SOLICITATION AND AWARD UNDER PROTEST, AND MUST STATE THE GROUNDS FOR THE PROTEST. THE PURCHASING DIRECTOR SHALL PROVIDE A COPY OF ANY TIMELY BID PROTEST TO THE MAYOR AND CITY COUNCIL WITHIN SEVEN (7) CALENDAR DAYS OF ITS SUBMISSION.

(3) *TIME LIMITS FOR FILING.* PROTESTS MUST BE RECEIVED BY THE PURCHASING DIRECTOR NO LATER THAN SEVEN (7) CALENDAR DAYS AFTER THE AGGRIEVED PERSON KNEW OR SHOULD HAVE KNOWN OF THE FACTS GIVING RISE TO THE PROTEST, AND IN NO EVENT LATER THAN FOURTEEN (14) CALENDAR DAYS AFTER AWARD OF THE PURCHASE ORDER AGREEMENT OR CONTRACT. FAILURE TO FILE A BID PROTEST WITHIN THESE TIME LIMITS CONSTITUTES A WAIVER OF THE PROTEST.

(4) *STAY OF PROCUREMENTS DURING PROTESTS.* IN THE EVENT A TIMELY PROTEST IS SUBMITTED TO THE PURCHASING DIRECTOR UNDER THIS SECTION, THE PURCHASING DIRECTOR SHALL NOT PROCEED FURTHER WITH THE SOLICITATION, AWARD, OR PERFORMANCE OF THE PURCHASE ORDER AGREEMENT OR CONTRACT UNTIL THE PROTEST IS SUSTAINED OR DISMISSED, OR THE CITY COUNCIL MAKES A DETERMINATION ON THE RECORD THAT THE AWARD OR PERFORMANCE OF A PURCHASE ORDER AGREEMENT OR CONTRACT WITHOUT DELAY IS NECESSARY TO PROTECT SUBSTANTIAL INTERESTS OF THE CITY; PROVIDED HOWEVER THAT IF THE POSTPONEMENT OF THE PURCHASE OF GOODS OR SERVICES IMPAIRS THE ABILITY OF THE CITY TO CARRY OUT ITS SERVICES, THE PURCHASING DIRECTOR, WITH THE APPROVAL OF THE MAYOR, MAY TAKE NECESSARY STEPS TO OBTAIN THE MINIMUM AMOUNT OF GOODS AND SERVICES NECESSARY TO ENABLE CITY SERVICES TO CONTINUE.

(5) *DECISION BY THE PURCHASING DIRECTOR.* THE PURCHASING DIRECTOR SHALL ISSUE A WRITTEN DECISION SUSTAINING OR DENYING THE BID PROTEST WITHIN FIFTEEN (15) DAYS OF RECEIPT OF A WRITTEN AND TIMELY PROTEST. A COPY OF THE PURCHASING DIRECTOR'S DECISION MUST BE PROVIDED TO THE PROTESTING BIDDER OR PROPOSER, THE MAYOR, AND THE CITY COUNCIL.

(6) *APPEAL TO THE MAYOR.* A PROTESTING BIDDER OR PROPOSER MAY APPEAL THE PURCHASING DIRECTOR'S DECISION TO THE MAYOR BY FILING A WRITTEN APPEAL WITH THE MAYOR WITHIN SEVEN (7) DAYS OF THE DATE OF THE PURCHASING DIRECTOR'S DECISION. THE MAYOR SHALL CONDUCT THE INVESTIGATION AS DEEMED NECESSARY TO RESPOND TO THE APPEAL, AND SHALL PROVIDE HIS OR HER DECISION ON THE APPEAL WITHIN SEVEN (7) DAYS.

(7) *APPEAL TO CITY COUNCIL.* A PROTESTING BIDDER OR PROPOSER MAY APPEAL THE PURCHASING DIRECTOR'S DECISION TO THE CITY COUNCIL BY FILING A WRITTEN APPEAL WITH THE CITY CLERK WITHIN SEVEN (7) DAYS OF THE DATE OF THE MAYOR'S DECISION. THE PROTESTING BIDDER SHALL BE AFFORDED AN OPPORTUNITY AT THE NEXT REGULARLY SCHEDULED CITY COUNCIL MEETING TO ADDRESS THE CITY COUNCIL AND STATE THE GROUNDS FOR THE APPEAL. NO LATER THAN THE NEXT REGULARLY SCHEDULED MEETING, CITY COUNCIL

SHALL MAKE ITS DECISION ON THE APPEAL.

§ 18-21.16 CONTRACT CLAIMS.

(1) *DECISION OF THE PURCHASING DIRECTOR.* ALL CLAIMS BY A CONTRACTOR AGAINST THE CITY RELATING TO A CONTRACT SHALL BE SUBMITTED IN WRITING TO THE PURCHASING DIRECTOR FOR A DECISION. THE SUBMISSION MUST IDENTIFY THE GROUNDS FOR THE CLAIM. THE CONTRACTOR MAY REQUEST A CONFERENCE WITH THE PURCHASING DIRECTOR ON THE CLAIM. CLAIMS INCLUDE, WITHOUT LIMITATION, DISPUTES ARISING UNDER A CONTRACT, AND THOSE BASED UPON BREACH OF CONTRACT, MISTAKE, MISREPRESENTATION, OR OTHER CAUSE FOR CONTRACT MODIFICATION OR RESCISSION.

(2) *NOTICE TO THE CONTRACTOR OF THE PURCHASING DIRECTOR'S DECISION.* THE DECISION OF THE PURCHASING DIRECTOR SHALL BE ISSUED IN WRITING WITHIN THIRTY (30) DAYS OF SUBMISSION, AND SHALL BE IMMEDIATELY MAILED OR OTHERWISE FURNISHED TO THE CONTRACTOR. THE DECISION SHALL STATE THE REASONS FOR THE DECISION REACHED, AND SHALL INFORM THE CONTRACTOR OF ITS APPEAL RIGHTS UNDER SUBSECTION (3) OF THIS SECTION. THE PURCHASING DIRECTOR SHALL CONSULT WITH THE CITY ATTORNEY PRIOR TO MAKING A DECISION DENYING THE CONTRACTOR'S CLAIM IN WHOLE OR IN PART.

(3) *FINALITY OF PURCHASING DIRECTOR DECISION; CONTRACTOR'S RIGHT TO APPEAL.* THE PURCHASING DIRECTOR DECISION SHALL BE FINAL AND CONCLUSIVE UNLESS, WITHIN SEVEN (7) CALENDAR DAYS FROM THE DATE OF RECEIPT OF THE DECISION, THE CONTRACTOR MAILS OR OTHERWISE DELIVERS A WRITTEN APPEAL TO THE CITY ADMINISTRATOR.

(4) *APPEAL TO THE CITY ADMINISTRATOR.* A PROTESTING CONTRACTOR MAY APPEAL THE PURCHASING DIRECTOR'S DECISION TO THE CITY ADMINISTRATOR BY FILING A WRITTEN APPEAL WITH THE CITY ADMINISTRATOR WITHIN SEVEN (7) DAYS OF THE DATE OF THE PURCHASING DIRECTOR'S DECISION. THE CITY ADMINISTRATOR SHALL CONDUCT THE INVESTIGATION AS DEEMED NECESSARY TO RESPOND TO THE APPEAL, AND SHALL PROVIDE HIS DECISION ON THE APPEAL WITHIN SEVEN (7) DAYS.

§ 18-21.17 AUTHORITY OF THE PURCHASING DIRECTOR TO SETTLE BID PROTESTS AND CONTRACT CLAIMS.

THE PURCHASING DIRECTOR IS AUTHORIZED TO SETTLE ANY PROTEST REGARDING THE SOLICITATION OR AWARD OF A PURCHASE ORDER AGREEMENT OR CITY CONTRACT, OR ANY CLAIM ARISING OUT OF THE PERFORMANCE OF A PURCHASE ORDER AGREEMENT OR CITY CONTRACT, PRIOR TO THE COMMENCEMENT OF AN ACTION IN A COURT OF COMPETENT JURISDICTION.

§ 18-21.18 CANCELLATION OF SOLICITATIONS FOR THE PURCHASE OF GOODS AND SERVICES.

AT ANY TIME THE CITY DETERMINES THAT A SOLICITATION FOR GOODS OR SERVICES SHOULD BE CANCELLED BECAUSE IT IS NOT IN THE BEST INTERESTS OF THE CITY TO MAKE THE PROCUREMENT, THE

PURCHASING DIRECTOR SHALL IMMEDIATELY NOTIFY THE POTENTIAL VENDORS OF THE CITY'S DECISION. HOWEVER, THE CITY SHALL HAVE NO OBLIGATION OR RESPONSIBILITY FOR ANY COSTS OR INCONVENIENCES INCURRED BY ANY POTENTIAL VENDOR, UNLESS AN AWARD HAS BEEN FORMALLY MADE AND ACCEPTED BY ISSUANCE OF A PURCHASE ORDER OR SIGNING OF A CONTRACT.

§ 18-21.19 ETHICS IN PURCHASING.

THE PROCESS OF PURCHASING GOODS AND SERVICES IS DESIGNED TO ENSURE COMPETITIVE PROCUREMENT CONDUCTED IN AN ETHICAL AND TIMELY MANNER IN ORDER FOR THE CITY TO CARRY OUT ITS DUTIES.

ALL EMPLOYEES DELEGATED AUTHORITY WITH RESPECT TO ALL PURCHASES OF GOODS AND SERVICES ARE CHARGED WITH THE RESPONSIBILITY OF MAKING PURCHASES IN A COMPETITIVE AND ETHICAL MANNER, AND FOR ADHERING IN ALL RESPECTS TO THE CITY OF FLINT CODE OF CONDUCT POLICY. VIOLATION OF THE CITY OF FLINT CODE OF CONDUCT POLICY, INCLUDING THE USE OF CITY RESOURCES FOR PERSONAL USE OR GAIN IS GROUNDS FOR TERMINATION OF EMPLOYMENT AND POSSIBLE CRIMINAL PROSECUTION.

LIKEWISE, PERSONS OR ENTITIES PROPOSING TO, OR ENGAGED IN, THE PROVISION OF GOODS AND SERVICES TO THE CITY ARE CHARGED WITH THE RESPONSIBILITY OF PROPOSING AND PROVIDING GOODS AND SERVICES IN A COMPETITIVE AND ETHICAL MANNER.

WHILE A PROCUREMENT IS PENDING, BIDDERS AND PROPOSERS SHALL NOT COMMUNICATE ABOUT THE SOLICITATION WITH ANY CITY EMPLOYEE, AGENT, OR ELECTED OFFICIAL, OTHER THAN THE PURCHASING DIRECTOR OR OTHER CITY PERSONNEL IDENTIFIED IN THE SOLICITATION.

TO THE EXTENT THAT VIOLATIONS OF THE ETHICAL STANDARDS OF CONDUCT SET FORTH IN THIS ARTICLE CONSTITUTE VIOLATIONS OF THE MICHIGAN PENAL CODE, THEY SHALL BE PUNISHABLE AS PROVIDED THEREIN. THE PENALTIES SHALL BE IN ADDITION TO THE CIVIL SANCTIONS SET FORTH IN THIS ARTICLE. CRIMINAL, CIVIL, AND ADMINISTRATIVE SANCTIONS AGAINST EMPLOYEES OR NON-EMPLOYEES THAT ARE IN EXISTENCE ON THE EFFECTIVE DATE OF THIS ARTICLE SHALL NOT BE IMPAIRED.

IT SHALL BE UNETHICAL AND GROUNDS FOR DEBARMENT AND POTENTIAL CRIMINAL PROSECUTION FOR ANY PERSON TO OFFER, GIVE, OR AGREE TO GIVE TO ANY CITY EMPLOYEE A GRATUITY, AN OFFER OF EMPLOYMENT, OR ANYTHING ELSE OF VALUE IN CONNECTION WITH ANY DECISION TO APPROVE, DISAPPROVE, OR RECOMMEND THE AWARD OF A CONTRACT, OR IN CONNECTION WITH ANY DECISION WITH REGARD TO A BID PROTEST, OR WITH INTENT TO INFLUENCE THE CONTENT OF ANY SPECIFICATIONS OR PROCUREMENT STANDARDS, OR ADVICE, INVESTIGATION, AUDIT REPORT, OR ANY OTHER ADVISORY COMMUNICATION RELATED TO A PROCUREMENT OR CONTRACT UNDER THIS ARTICLE.

IT SHALL BE UNETHICAL AND A VIOLATION OF THE CITY OF FLINT CODE OF CONDUCT POLICY AND

GROUNDS FOR POSSIBLE TERMINATION AND CRIMINAL PROSECUTION FOR ANY CITY EMPLOYEE TO SOLICIT, DEMAND, ACCEPT, OR AGREE TO ACCEPT FROM ANOTHER PERSON A GRATUITY, AN OFFER OF EMPLOYMENT, OR ANYTHING ELSE OF VALUE IN CONNECTION WITH ANY DECISION TO APPROVE, DISAPPROVE, OR RECOMMEND THE AWARD OF A CONTRACT, OR IN CONNECTION WITH ANY DECISION WITH REGARD TO A BID PROTEST, OR WITH INTENT TO INFLUENCE THE CONTENT OF ANY SPECIFICATIONS OR PROCUREMENT STANDARDS, OR ADVICE, INVESTIGATION, AUDIT REPORT, OR ANY OTHER ADVISORY COMMUNICATION RELATED TO A PROCUREMENT OR CONTRACT UNDER THIS ARTICLE.

IT SHALL BE UNETHICAL AND GROUNDS FOR DEBARMENT AND POTENTIAL CRIMINAL PROSECUTION FOR ANY PAYMENT, GRATUITY, OR OFFER OF EMPLOYMENT TO BE MADE BY OR ON BEHALF OF A SUBCONTRACTOR UNDER A CONTRACT TO THE PRIME CONTRACTOR OR HIGHER TIER SUBCONTRACTOR OR ANY PERSON ASSOCIATED THEREWITH, AS AN INDUCEMENT FOR THE AWARD OF A SUBCONTRACT OR ORDER.

§ ~~18-21.14~~ 18-21.20 SALE OR LEASE OF CITY OWNED PROPERTY.

No interest in real property of the City ~~of Flint~~ shall be disposed of, transferred, or otherwise alienated unless by ordinance or resolution of the City Council.

Sec. 2. This ordinance shall become effective the 1st **day of** May, **~~2014~~** 2015.

Adopted this 10th **day of** April, **2015 A.D.**

Gerald Ambrose, Emergency Manager

APPROVED AS TO FORM:

Peter M. Bade, City Attorney

EM SUBMISSION NO.: EMA 162 2015

PRESENTED: 4-9-15

ADOPTED: 4-10-15

S:\Ordinance Files\Purchasing Ordinance Final 04.02.15.docx

Gerald Ambrose
Emergency Manager

Dayne Walling
Mayor

Jason Lorenz
Public Information Officer
(810) 237-2039
jlorenz@cityofflint.com

For Immediate Release

EM Updates Council, Requests support for Emergency Loan and District Court Consolidation; Adjusts Salaries for Mayor and Council

Flint, Michigan – April 13, 2015 – By letter to City Council issued today, Emergency Manager Jerry Ambrose congratulated City Council for their recent actions committing to restoring and maintaining the City's financial solvency. Mr. Ambrose stated that recent actions to adopt a series of ordinances requiring commitment to establishing appropriate financial reserves and an improved planning and budgeting process indicate that the Council understands the need to restore and maintain Flint's financial solvency. "While there is much yet to do, these are positive steps in the right direction," said Mr. Ambrose. "The ongoing challenge will be to adhere to the requirements the City Council has adopted themselves."

Mr. Ambrose's letter also reiterated the priority issues currently facing the City – developing a long range financial plan, beginning with the upcoming FY16 and FY17 budget; continuing to address concerns with water safety, quality and affordability; and stabilizing resources for public safety. "These are clearly the top priority issues, and ones which require the cooperation of all if they are to be successfully addressed," stated Mr. Ambrose. "Unfortunately, resources are extremely limited, and we must make decisions which address the most critical issues in a financially sound manner – and that often means we cannot do everything everybody wants."

Some of the ingredients of restoring Flint's financial solvency on a sustainable basis, according to Mr. Ambrose, include obtaining a $7 million loan to finance the accumulated

–CONTINUE–

General Fund deficit and approving the consolidation of the 67th and 68th District Courts. Both issues are pending before City Council and Mr. Ambrose is hopeful for a quick positive response. "The terms and conditions offered with this loan equate to a good deal for the City and will enable it to begin to more quickly rebuild its financial solvency. Approving the court consolidation will reduce City expenses by $8.4 million over the next 10 years and will help to provide some stability in funding other public safety services."

Mr. Ambrose also presented Council with actions he is taking to continue the progress towards transition, including an updated purchasing ordinance and an order officially defining the role of the new City Administrator as the chief administrative officer for the City. "Moving the City forward in today's environment requires professional managers, clear responsibilities, and modern practices," said Ambrose. "These actions move in that direction, and hopefully move the Council forward in truly becoming the governing body of the City, focused on policies and accountability for moving the City forward based on its vision, mission, and goals."

Recognizing the increasing role of the Mayor and Council as the City transitions to home rule with oversight by a Receivership Transition Advisory Board, Mr. Ambrose announced that he is reestablishing the salaries for Mayor and Council at the levels in place before the City was most recently placed into state receivership. He noted that Council meetings are now held twice per month, with committee meetings held once per month, and the Mayor is now much more engaged in a Chief Executive role. Continued receipt of the re-established salaries, however, will be contingent upon attainment of certain training levels. These training levels were established in prior orders of the Emergency Manager, and Councilmembers will have until November 1, 2015 to obtain it, or their salary will be reduced to the current level.

–END–

From: Hollins, Harvey (GOV)
Sent: Wednesday, April 29, 2015 12:14 PM
To: Clayton, Stacie (GOV)
Subject: 20150429_Flint Emergency Management and Water Briefing.docx
Attachments: 20150429_Flint Emergency Management and Water Briefing.docx

USE THIS VERSION for proofing

Flint Emergency Management Briefing

Redacted

Redacted

Flint Water Briefing

In November 2012 the Department of Treasury commissioned the firm of Tucker, Young, Jackson & Tull, Inc. (TYJT) to analyze options for the City of Flint to either remain a customer of the Detroit Water & Sewer Department (DWSD) or to join the Karegnondi Water Authority (KWA) in Genesee County. The purpose of this study was to provide objective analyses to the State Treasurer and Flint's Emergency Financial Manager (EFM) in order to secure future potable drinking water for the City.

In December 2012, staff from TYJT met with representatives from the Department of Treasury and the City of Flint to provide a preliminary report on their findings. At this meeting, options presented were: 1) Flint Water Plant will provide 100% water, 2) 100% provision of untreated Lake Huron Water by KWA, 3) 100% provision of treated drinking water by DWSD, or 4) provision of variable amounts of water from DWSD using a combination of blended DWSD water and Flint River water.

The Flint EFM eliminated all options except the 100% DWSD option or joining KWA, deciding later to join KWA.

On April 25, Flint officially ended nearly 50-years of using DWSD to supply water.

The city currently uses the Flint River until the Karegnondi Water Authority pipeline is built, which will bring untreated Lake Huron water to Genesee County. KWA should be operational by winter 2016.

The Flint River water is harder than DWSD. A number of residents are experiencing discoloration and order with the water. In addition there have been a number of citations largely around heighten levels of Total Trihalomethanes (TTHM).

Given water quality concerns, suggestions have been made that the City of Flint should return to using water purchased through the Detroit Water and Sewerage Department (DWSD). For many reasons, financial and otherwise, the City of Flint can ill-afford to switch courses at this point. The estimated cost to go back to the water provided by the DWSD is approximately $1 million per month and the City expects to be using the Karegnondi Water Authority (KWA) Lake Huron water within or before the 1st quarter of 2016.

The City of Flint is proceeding with a series of actions to ensure the continued safety of Flint drinking water is maintained and that issues of discoloration and odor continue to be addressed. Most notably, the installation of a Granulated Active Charcoal filter (GAC) at the Water Treatment Plant is expected to be authorized this week by Emergency Manager Jerry Ambrose.

The introduction of the GAC to the treatment process at Flint's plant will absorb or reduce the chemical precursors which will block or eliminate the formation of TTHM during the filtration process. Engineering and design are underway and installation of the GAC is targeted for completion by mid-July. Cost of this improvement is projected at $1.5 million and will be paid for by the proceeds from the state approved restructuring of the City's Drinking Water Revolving Fund loans.

In addition to the installation of the GAC, the City of Flint is undertaking a number of other improvements to the water system in the coming months, including a water leak detection monitoring, completion of the hydraulic model and subsequent targeted hydrant flushing program, and the replacement of two miles of water main pipe in a critical area of the city. All of these improvements scheduled to occur within the next six months.

From: Hollins, Harvey (GOV)
Sent: Wednesday, July 29, 2015 9:03 AM
To: Clayton, Stacie (GOV)
Subject: FW: Updated Memo on Water Coalition Questions - July 29
Attachments: Memo on Water Coalition Questions III.07-29-15.docx; Flint Water Rate History FINAL 02.11.15.pdf

Importance: High

From: Muchmore, Dennis (GOV)
Sent: Wednesday, July 29, 2015 9:03:27 AM (UTC-05:00) Eastern Time (US & Canada)
To: Hollins, Harvey (GOV)
Subject: FW: Updated Memo on Water Coalition Questions - July 29

Here's the answers to some of the questions. How do you want to approach the pastors and community leaders, we owe them answers to the questions they asked.

From: Workman, Wayne (TREASURY)
Sent: Wednesday, July 29, 2015 8:36 AM
To: Muchmore, Dennis (GOV); Wurfel, Brad (DEQ); Lyon, Nick (DCH); Clement, Elizabeth (GOV)
Cc: Saxton, Thomas (Treasury); Wisniewski, Wendy (GOV)
Subject: FW: Updated Memo on Water Coalition Questions - July 29
Importance: High

All, Attached is a memo and water rate summary answering several of the questions raised by the Flint pastors. Please let me know if you have any questions. Wayne

Wayne L. Workman
Deputy State Treasurer
Michigan Department of Treasury

From: Cline, Richard (Treasury)
Sent: Wednesday, July 29, 2015 8:21 AM
To: Workman, Wayne (TREASURY)
Cc: Dempkowski, Angela (Treasury); Byrne, Randall (Treasury)
Subject: Updated Memo on Water Coalition Questions - July 29
Importance: High

Wayne,

Attached is the water rate table you asked for and I have updated the memo to reference this as an attachment.

If you need anything else, please let me know.

Note that Rob, Randy and I will be in Benton Harbor for a portion of today conducting their annual RTAB evaluation.

Eric Cline | Department Manager
State of Michigan | Michigan Department of Treasury | Office of Fiscal Responsibility
430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
Lansing Office (517) 335-2078 | [redacted] | Traverse City Office (231) 922-5228
E-mail clinerl@michigan.gov

CONFIDENTIALITY NOTICE: This e-mail, and any attachments, is for the sole use of the intended recipient(s) and may contain information that is confidential and protected from disclosure under the law. Any unauthorized review, use, disclosure, or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail, and delete/destroy all copies of the original message and attachments Thank you.

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

NICK A. KHOURI
STATE TREASURER

TO: Randall Byrne, State Administrative Manager; Office of Fiscal Responsibility

FROM: Eric Cline, Department Manager; Office of Fiscal Responsibility

SUBJECT: Questions Regarding City of Flint Water System

DATE: July 28, 2015

At a July 23, 2015 meeting, Deputy Treasurer Workman posed several questions regarding the City of Flint's water system. This memo is a response to those questions.

The annual cost to the City of Flint to reconnect to the DWSD system

In a March 3, 2015 memo to Deputy Treasurer Workman, Emergency Manager Ambrose noted that he had been informed by DWSD that such a reconnection would immediately levy a fixed cost on the City of $10.1-million per year.

Actual water purchases would be in addition to the fixed cost fee and would be dependent upon actual usage, but the annual cost was estimated to be as high as $1-million/month; making the entire total of a one year connection back to DWSD as high as $22-million. This cost would be reduced to approximately $19-million/year once the City's $3-million annual expense of operating the water system itself was offset.

These calculations were outlined in a March 2015 memo from the Emergency Manager to Deputy Treasurer Workman and update cost projections provided in a February 11, 2015 memo to Chief Deputy Treasurer Tom Saxton.

The Emergency Manager also stated his concern that for the City to be able to pay these costs that water rates charged to Flint residents would need to be increased by a minimum of 30%. Water rate increases between 2010 and 2015 are illustrated in the table attached.

In addition, DWSD was requiring that the City of Flint negotiate a 30-year contract for the provision of back-up services.

The City of Flint's degree of participation in the management of the KWA system

Mayor Dayne Walling is the City's official representative to the Karegnondi Water Authority (KWA). The participation of the Mayor as the official representative for the City of Flint is established in the KWA Articles of Incorporation. Mayor Walling is the current Chair of the Board of the KWA Board of Directors.

Continued use of Flint River water after the City is connected to the KWA system

The City Administrator has confirmed that once the City is fully connected to the KWA system they will no longer continue to use Flint River water.

The Flint River, however, will be the City's primary back-up water source in the event that a major disruption in the KWA system temporarily prevents the City from receiving water.

The process used to hire Veolia

Veolia responded on January 29, 2015, to a Request for Proposal issued by the City of Flint. Emergency Manager Ambrose made the final decision to retain Veolia.

The importance of hydrant flushing

Fire hydrant flushing is an important part of distribution system maintenance. It is useful in determining flow conditions in water mains.

According to information from the American Water Works Association (AWWA), there are two types of hydrant flushing utilized. The most comprehensive method is fire-flow testing.

Fire-flow testing requires hydrants to be opened, flushed, pressure and flow data to be collected and the potential fire flow at a particular point in a water main to be determined.

Hydrant flushing permits any debris to be cleared from a water main. They process of collecting fire flow data allows the determination of water pressure and flow capabilities for fighting fires at any location within a distribution system. It can also help determine the general condition of a system by detecting reduced water flows in a given area.

Status of the GAC carbon filter installation

Six of the twelve filters will be operational by no later than the first week of August.

Activation of the filters is expected to immediately drop the levels of TTHM within the system.

The remaining six filters are projected to be installed and operational by the end of August.

Status of the DuPont Street Water Main Replacement

After an internal review, the City made the decision to rebid this project.

There were multiple reasons for this decision, which included interference with current road projects, the determination that project bids were too high, and bidding timelines which were not favorable to secure quality bids or contractors.

This project will be rebid by the City later this fiscal year.

If you have any questions or need additional information on this topic, let me know. Thank you.

Attachment

<< AUTO PATH >>

City of Flint Water Rate History

Year (Date Effective)	Average Monthly Water/Sewer Bill*	Percentage Change in Water/Sewer Rates	Water Fund** Total Operating Revenue	Water Fund** Unrestricted Net Position	Water Fund** Capital Improvements
2010	$64	12%	$31,956,754	-$5,795,973	$2,091,160
1/15/2011	$82	29%	$36,762,663	-$12,443,265	$1,403,916
9/16/2011	$111	35%			
7/1/2012	$111	26%	$44,854,439	-$8,758,091	$755,681
2013	$140	0%	$49,903,868	$834,447	$147,462
07/01/13 to 06/30/14	$140	0%	$43,552,152	$760,745	$3,301,700
07/01/14 to 06/30/15	149***	6%	N/A	N/A	N/A

Note* Water rate information is based on average usage of 7 units per month with a 5/8" residential remote meter.
Note** Water fund information was compiled from the City of Flint's CAFR filed with the Michigan Department of Treasury.
Note*** Billing breakdown contained in attached memo.

From: Hollins, Harvey (GOV)
Sent: Wednesday, July 29, 2015 11:21 AM
To: Muchmore, Dennis (GOV)
Cc: Clayton, Stacie (GOV)
Subject: Re: Updated Memo on Water Coalition Questions - July 29

If your schedule permits, let's go to Flint to meet with them next week, or we can ask them to come back to Lansing. We should convey the response verbally and in person. If you're open to it, I'll ask Stacie to schedule that meeting next week.

Best,
Harvey

On Jul 29, 2015, at 9:03 AM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:

> Here's the answers to some of the questions. How do you want to approach the pastors and community leaders, we owe them answers to the questions they asked.
>
> ---
>
> **From:** Workman, Wayne (TREASURY)
> **Sent:** Wednesday, July 29, 2015 8:36 AM
> **To:** Muchmore, Dennis (GOV); Wurfel, Brad (DEQ); Lyon, Nick (DCH); Clement, Elizabeth (GOV)
> **Cc:** Saxton, Thomas (Treasury); Wisniewski, Wendy (GOV)
> **Subject:** FW: Updated Memo on Water Coalition Questions - July 29
> **Importance:** High
>
> All, Attached is a memo and water rate summary answering several of the questions raised by the Flint pastors. Please let me know if you have any questions. Wayne
>
> Wayne L. Workman
> Deputy State Treasurer
> Michigan Department of Treasury
>
> ---
>
> **From:** Cline, Richard (Treasury)
> **Sent:** Wednesday, July 29, 2015 8:21 AM
> **To:** Workman, Wayne (TREASURY)
> **Cc:** Dempkowski, Angela (Treasury); Byrne, Randall (Treasury)
> **Subject:** Updated Memo on Water Coalition Questions - July 29
> **Importance:** High
>
> Wayne,
>
> Attached is the water rate table you asked for and I have updated the memo to reference this as an attachment.
>
> If you need anything else, please let me know.

Note that Rob, Randy and I will be in Benton Harbor for a portion of today conducting their annual RTAB evaluation.

Eric Cline | Department Manager
State of Michigan | Michigan Department of Treasury | Office of Fiscal Responsibility
430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
Lansing Office (517) 335-2078 | [redacted]raverse City Office (231) 922-5228
E-mail cliner1@michigan.gov

CONFIDENTIALITY NOTICE: This e-mail, and any attachments, is for the sole use of the intended recipient(s) and may contain information that is confidential and protected from disclosure under the law. Any unauthorized review, use, disclosure, or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail, and delete/destroy all copies of the original message and attachments Thank you.

<Memo on Water Coalition Questions III.07-29-15.docx>

<Flint Water Rate History FINAL 02.11.15.pdf>

From: Wisniewski, Wendy (GOV)
Sent: Wednesday, July 29, 2015 11:35 AM
To: Clayton, Stacie (GOV)
Subject: RE: Updated Memo on Water Coalition Questions - July 29

I don't think Dennis can go to Flint without having to completely reschedule a day and he is out of the office August 10 and then August 12 – 25 so I really can't completely redo a day. There's no place to put things

---

From: Clayton, Stacie (GOV)
Sent: Wednesday, July 29, 2015 11:25 AM
To: Wisniewski, Wendy (GOV)
Subject: FW: Updated Memo on Water Coalition Questions - July 29

FYI…looks like they want to go to Flint next week or have the meeting in Lansing. Please let me know what Dennis says and I'll work on scheduling.

Stacie

From: Hollins, Harvey (GOV)
Sent: Wednesday, July 29, 2015 11:21 AM
To: Muchmore, Dennis (GOV)
Cc: Clayton, Stacie (GOV)
Subject: Re: Updated Memo on Water Coalition Questions - July 29

If your schedule permits, let's go to Flint to meet with them next week, or we can ask them to come back to Lansing. We should convey the response verbally and in person. If you're open to it, I'll ask Stacie to schedule that meeting next week.

Best,
Harvey

On Jul 29, 2015, at 9:03 AM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:

> Here's the answers to some of the questions. How do you want to approach the pastors and community leaders, we owe them answers to the questions they asked.
>
> ---
>
> **From:** Workman, Wayne (TREASURY)
> **Sent:** Wednesday, July 29, 2015 8:36 AM
> **To:** Muchmore, Dennis (GOV); Wurfel, Brad (DEQ); Lyon, Nick (DCH); Clement, Elizabeth (GOV)
> **Cc:** Saxton, Thomas (Treasury); Wisniewski, Wendy (GOV)
> **Subject:** FW: Updated Memo on Water Coalition Questions - July 29
> **Importance:** High
>
> All, Attached is a memo and water rate summary answering several of the questions raised by the Flint pastors. Please let me know if you have any questions. Wayne
>
> Wayne L. Workman

Deputy State Treasurer
Michigan Department of Treasury

From: Cline, Richard (Treasury)
Sent: Wednesday, July 29, 2015 8:21 AM
To: Workman, Wayne (TREASURY)
Cc: Dempkowski, Angela (Treasury); Byrne, Randall (Treasury)
Subject: Updated Memo on Water Coalition Questions - July 29
Importance: High

Wayne,

Attached is the water rate table you asked for and I have updated the memo to reference this as an attachment.

If you need anything else, please let me know.

Note that Rob, Randy and I will be in Benton Harbor for a portion of today conducting their annual RTAB evaluation.

Eric Cline | Department Manager
State of Michigan | Michigan Department of Treasury | Office of Fiscal Responsibility
430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
Lansing Office (517) 335-2078 | [redacted] | Traverse City Office (231) 922-5228
E-mail clinerl@michigan.gov

CONFIDENTIALITY NOTICE: This e-mail, and any attachments, is for the sole use of the intended recipient(s) and may contain information that is confidential and protected from disclosure under the law. Any unauthorized review, use, disclosure, or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail, and delete/destroy all copies of the original message and attachments Thank you.

<Memo on Water Coalition Questions III.07-29-15.docx>

<Flint Water Rate History FINAL 02.11.15.pdf>

From: Wisniewski, Wendy (GOV)
Sent: Wednesday, July 29, 2015 11:43 AM
To: Clayton, Stacie (GOV)
Subject: RE: Updated Memo on Water Coalition Questions - July 29

He could do an hour between 9:00 – 11:00 or he could miss lunch and do noon – 1:00

From: Clayton, Stacie (GOV)
Sent: Wednesday, July 29, 2015 11:42 AM
To: Wisniewski, Wendy (GOV)
Subject: RE: Updated Memo on Water Coalition Questions - July 29

Thank you. Can Dennis do Lansing on Tuesday, August 4, before 3pm? If not, I'll see if Harvey wants me to schedule him to do the meeting in Flint another day without Dennis.

Stacie

From: Wisniewski, Wendy (GOV)
Sent: Wednesday, July 29, 2015 11:35 AM
To: Clayton, Stacie (GOV)
Subject: RE: Updated Memo on Water Coalition Questions - July 29

I don't think Dennis can go to Flint without having to completely reschedule a day and he is out of the office August 10 and then August 12 – 25 so I really can't completely redo a day. There's no place to put things

---

From: Clayton, Stacie (GOV)
Sent: Wednesday, July 29, 2015 11:25 AM
To: Wisniewski, Wendy (GOV)
Subject: FW: Updated Memo on Water Coalition Questions - July 29

FYI…looks like they want to go to Flint next week or have the meeting in Lansing. Please let me know what Dennis says and I'll work on scheduling.

Stacie

From: Hollins, Harvey (GOV)
Sent: Wednesday, July 29, 2015 11:21 AM
To: Muchmore, Dennis (GOV)
Cc: Clayton, Stacie (GOV)
Subject: Re: Updated Memo on Water Coalition Questions - July 29

If your schedule permits, let's go to Flint to meet with them next week, or we can ask them to come back to Lansing. We should convey the response verbally and in person. If you're open to it, I'll ask Stacie to schedule that meeting next week.

Best,
Harvey

On Jul 29, 2015, at 9:03 AM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:

Here's the answers to some of the questions. How do you want to approach the pastors and community leaders, we owe them answers to the questions they asked.

From: Workman, Wayne (TREASURY)
Sent: Wednesday, July 29, 2015 8:36 AM
To: Muchmore, Dennis (GOV); Wurfel, Brad (DEQ); Lyon, Nick (DCH); Clement, Elizabeth (GOV)
Cc: Saxton, Thomas (Treasury); Wisniewski, Wendy (GOV)
Subject: FW: Updated Memo on Water Coalition Questions - July 29
Importance: High

All, Attached is a memo and water rate summary answering several of the questions raised by the Flint pastors. Please let me know if you have any questions. Wayne

Wayne L. Workman
Deputy State Treasurer
Michigan Department of Treasury

From: Cline, Richard (Treasury)
Sent: Wednesday, July 29, 2015 8:21 AM
To: Workman, Wayne (TREASURY)
Cc: Dempkowski, Angela (Treasury); Byrne, Randall (Treasury)
Subject: Updated Memo on Water Coalition Questions - July 29
Importance: High

Wayne,

Attached is the water rate table you asked for and I have updated the memo to reference this as an attachment.

If you need anything else, please let me know.

Note that Rob, Randy and I will be in Benton Harbor for a portion of today conducting their annual RTAB evaluation.

Eric Cline | Department Manager
State of Michigan | Michigan Department of Treasury | Office of Fiscal Responsibility
430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
Lansing Office (517) 335-2078 | [redacted] | Traverse City Office (231) 922-5228
E-mail clinerl@michigan.gov

CONFIDENTIALITY NOTICE: This e-mail, and any attachments, is for the sole use of the intended recipient(s) and may contain information that is confidential and protected from disclosure under the law. Any unauthorized review, use, disclosure, or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail, and delete/destroy all copies of the original message and attachments Thank you.

<Memo on Water Coalition Questions III.07-29-15.docx>

<Flint Water Rate History FINAL 02.11.15.pdf>

From: Hollins, Harvey (GOV)
Sent: Wednesday, July 29, 2015 1:43 PM
To: Clayton, Stacie (GOV)
Subject: Fwd: Water Filter

Best,
Harvey

Begin forwarded message:

> **From:** "Hollins, Harvey (GOV)" <hollinsh@michigan.gov>
> **Date:** July 27, 2015 at 8:42:42 AM EDT
> **To:** [redacted]
> **Cc:** [redacted], "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>
> **Subject: Re: Water Filter**
>
> [redacted]
> Thank you. We will work with [redacted] to identify the appropriate entity to receive the filters for Flint residents. In addition, we'll keep you out the public eye on this.
>
> Please know, however, how much we appreciate [redacted] and most importantly you for doing this.
>
> Best,
> Harvey
>
> On Jul 27, 2015, at 7:44 AM, [redacted] wrote:
>
> > Harvey -
> >
> > We are all set. [redacted] can serve as liaison on this one. The merchant team can source 1,500 filters. We will get them to the community at cost. My guess is this will be $20k or so, but the team will give you a final number.
> >
> > Because we don't want to be a state vendor, we won't sell them to you. [redacted] will work out logistics of whether we make a donation of gift cards to the state that you use to purchase them, or whether there is some other entity to which we can give them.

Given all the circumstances, we are not interested in any publicity. We want it to be clear that the state is providing these, not [redacted]

Thanks for reaching out.

[redacted]

-----Original Message-----

From: Hollins, Harvey (GOV) [mailto:hollinsh@michigan.gov]

Sent: Thursday, July 23, 2015 12:20 PM

To: [redacted]

Subject: RE: Water Filter

Thank you.

-----Original Message-----

From: [redacted]

Sent: Thursday, July 23, 2015 10:57 AM

To: Hollins, Harvey (GOV)

Cc: [redacted]

Subject: RE: Water Filter

Will get back soon.

-----Original Message-----

From: Hollins, Harvey (GOV) [mailto:hollinsh@michigan.gov]

Sent: Wednesday, July 22, 2015 12:17 PM

To: [redacted]

Subject: Water Filter

[redacted]

Per our last conversation, I expressed that we were interested acquiring and distributing 1500 water filters to Flint residents to assist with the quality (perceived or real) of their drinking water until the KWA pipeline comes online.

A few weeks ago, you asked me to send you the product ID number so you could check with your suppliers regarding price. I apologize for taking long to send you product ID; a number of conversations needed to occur in Flint before we could proceed.

The product ID for a Brita Filter for kitchen faucets is:

Product ID 3176421

UPC 7-23987-0078

Thank you for taking the time to look into this.

Best,

Harvey Hollins III, Director

Governor's Office of Urban Initiatives

313.456.4994<tel:313.456.4994> (office)

[redacted]

NOTE: This electronic message and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this message in error, any unauthorized review, use, disclosure, distribution or copying of this message is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Unless expressly stated in this e-mail, nothing in this message should be construed as a digital or electronic signature or writing.

NOTE: This electronic message and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this message in error, any unauthorized review, use, disclosure, distribution or copying of this message is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Unless expressly stated in this e-mail, nothing in this message should be construed as a digital or electronic signature or writing.

From: [redacted]
Sent: Wednesday, July 29, 2015 1:56 PM
To: Clayton, Stacie (GOV)
Cc: [redacted]
Subject: Re: Water Filter

We are actually good to go and ready to ship vice copied [redacted], the VP over the area and my assistant.

Just let us know the "ship to" and we are on our way.

On Jul 29, 2015, at 1:47 PM, Clayton, Stacie (GOV) <claytons3@michigan.gov> wrote:

> Hi [redacted],
>
> I hope you are doing well and enjoying your summer. Please let me know a convenient time for a phone call with you so we can discuss the water filters.
>
> Thank you,
> Stacie
>
> ***Stacie Clayton, Assistant Director***
> Harvey Hollins III, Director
> Governor's Office of Urban Initiatives
> 3044 West Grand Boulevard, Ste. 14-650
> Detroit, MI 48202
> 313.456.4994 (office)
> claytons3@michigan.gov
>
> ---
>
> **From:** Hollins, Harvey (GOV)
> **Sent:** Wednesday, July 29, 2015 1:43 PM
> **To:** Clayton, Stacie (GOV)
> **Subject:** Fwd: Water Filter
>
> Best,
> Harvey
>
> Begin forwarded message:
>
> > **From:** "Hollins, Harvey (GOV)" <hollinsh@michigan.gov>
> > **Date:** July 27, 2015 at 8:42:42 AM EDT
> > **To:**
> > **Cc:** [redacted], "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Clement, Elizabeth (GOV)"

<clemente@michigan.gov>
Subject: Re: Water Filter

[redacted]

Thank you. We will work with [redacted] to identify the appropriate entity to receive the filters for Flint residents. In addition, we'll keep you out the public eye on this.

Please know, however, how much we appreciate [redacted] and most importantly you for doing this.

Best,
Harvey

On Jul 27, 2015, at 7:44 AM, [redacted] wrote:

Harvey -

We are all set. [redacted] can serve as liaison on this one. The merchant team can source 1,500 filters. We will get them to the community at cost. My guess is this will be $20k or so, but the team will give you a final number.

Because we don't want to be a state vendor, we won't sell them to you. [redacted] will work out logistics of whether we make a donation of gift cards to the state that you use to purchase them, or whether there is some other entity to which we can give them.

Given all the circumstances, we are not interested in any publicity. We want it to be clear that the state is providing these, not [redacted].

Thanks for reaching out.

[redacted]

-----Original Message-----

From: Hollins, Harvey (GOV) [mailto:hollinsh@michigan.gov]

Sent: Thursday, July 23, 2015 12:20 PM

To: [redacted]

Subject: RE: Water Filter

Thank you.

-----Original Message-----

From: [redacted]

Sent: Thursday, July 23, 2015 10:57 AM

To: Hollins, Harvey (GOV)

Cc: [redacted]

Subject: RE: Water Filter

Will get back soon.

-----Original Message-----

From: Hollins, Harvey (GOV) [mailto:hollinsh@michigan.gov]

Sent: Wednesday, July 22, 2015 12:17 PM

To: [redacted]

Subject: Water Filter

[redacted]

Per our last conversation, I expressed that we were interested acquiring and distributing 1500 water filters to Flint residents to assist with the quality (perceived or real) of their drinking water until the KWA pipeline comes online.

A few weeks ago, you asked me to send you the product ID number so you could check with your suppliers regarding price. I apologize for taking long to send you product ID; a number of conversations needed to occur in Flint before we could proceed.

The product ID for a Brita Filter for kitchen faucets is:

Product ID 3176421

UPC 7-23987-0078

Thank you for taking the time to look into this.

Best,

Harvey Hollins III, Director

Governor's Office of Urban Initiatives

313.456.4994<tel:313.456.4994> (office)
[redacted]

NOTE: This electronic message and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this message in error, any unauthorized review, use, disclosure, distribution or copying of this message is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Unless expressly stated in this e-mail, nothing in this message should be construed as a digital or electronic signature or writing.

NOTE: This electronic message and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this message in error, any unauthorized review, use, disclosure, distribution or copying of this message is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Unless expressly stated in this e-mail, nothing in this message should be construed as a digital or electronic signature or writing.

From: [redacted]
Sent: Wednesday, July 29, 2015 5:28 PM
To: Clayton, Stacie (GOV)
Cc: [redacted] Hollins, Harvey (GOV)
Subject: Re: Water Filter

They are actually being donated.

On Jul 29, 2015, at 5:23 PM, Clayton, Stacie (GOV) <claytons3@michigan.gov> wrote:

> Thank you, [redacted] for the quick response. Harvey does have an additional question. Is the plan for the state to purchase the filters or is [redacted] donating them? The former is fine and the latter is great. If we purchase them we have to determine the process. If they are donated, I will identify the location in Flint where they will be shipped.
>
> Stacie
>
> ---
>
> **From:** [redacted]
> **Sent:** Wednesday, July 29, 2015 1:56 PM
> **To:** Clayton, Stacie (GOV)
> **Cc:** [redacted]
> **Subject:** Re: Water Filter
>
> We are actually good to go and ready to ship vice copied [redacted], the VP over the area and my assistant.
>
> Just let us know the "ship to" and we are on our way.
>
> On Jul 29, 2015, at 1:47 PM, Clayton, Stacie (GOV) <claytons3@michigan.gov> wrote:
>
> > Hi [redacted],
> >
> > I hope you are doing well and enjoying your summer. Please let me know a convenient time for a phone call with you so we can discuss the water filters.
> >
> > Thank you,
> > Stacie
> >
> > ***Stacie Clayton, Assistant Director***
> > Harvey Hollins III, Director
> > Governor's Office of Urban Initiatives

3044 West Grand Boulevard, Ste. 14-650
Detroit, MI 48202
313.456.4994 (office)
claytons3@michigan.gov

From: Hollins, Harvey (GOV)
Sent: Wednesday, July 29, 2015 1:43 PM
To: Clayton, Stacie (GOV)
Subject: Fwd: Water Filter

Best,
Harvey

Begin forwarded message:

From: "Hollins, Harvey (GOV)" <hollinsh@michigan.gov>
Date: July 27, 2015 at 8:42:42 AM EDT
To: [redacted]
Cc: [redacted] "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>
Subject: Re: Water Filter

[redacted]
Thank you. We will work with [redacted] to identify the appropriate entity to receive the filters for Flint residents. In addition, we'll keep you out the public eye on this.

Please know, however, how much we appreciate [redacted] and most importantly you for doing this.

Best,
Harvey

On Jul 27, 2015, at 7:44 AM, [redacted] wrote:

Harvey -

We are all set. [redacted] can serve as liaison on this one. The merchant team can source 1,500 filters. We will get them to the community at cost. My guess is this will be $20k or so, but the team will give you a final number.

Because we don't want to be a state vendor, we won't sell them to you. [redacted] will work out logistics of whether we make a donation of gift cards to the state that you use to purchase them, or whether there is some other entity to which we can give them.

Given all the circumstances, we are not interested in any publicity. We want it to be clear that the state is providing these, not [redacted]

Thanks for reaching out.

[redacted]

-----Original Message-----

From: Hollins, Harvey (GOV) [mailto:hollinsh@michigan.gov]

Sent: Thursday, July 23, 2015 12:20 PM

To: [redacted]

Subject: RE: Water Filter

Thank you.

-----Original Message-----

From: [redacted]

Sent: Thursday, July 23, 2015 10:57 AM

To: Hollins, Harvey (GOV)

Cc: [redacted]

Subject: RE: Water Filter

Will get back soon.

-----Original Message-----

From: Hollins, Harvey (GOV) [mailto:hollinsh@michigan.gov]

Sent: Wednesday, July 22, 2015 12:17 PM

To: [redacted]

Subject: Water Filter

[redacted]

Per our last conversation, I expressed that we were interested acquiring and distributing 1500 water filters to Flint residents to assist with the quality (perceived or real) of their drinking water until the KWA pipeline comes online.

A few weeks ago, you asked me to send you the product ID number so you could check with your suppliers regarding price. I apologize for taking long to send you product ID; a number of conversations needed to occur in Flint before we could proceed.

The product ID for a Brita Filter for kitchen faucets is:

Product ID 3176421

UPC 7-23987-0078

Thank you for taking the time to look into this.

Best,

Harvey Hollins III, Director

Governor's Office of Urban Initiatives

313.456.4994<tel:313.456.4994> (office)

[redacted]

NOTE: This electronic message and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this message in error, any unauthorized review, use, disclosure, distribution or copying of this message is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Unless expressly stated in this e-mail, nothing in this

message should be construed as a digital or electronic signature or writing.

NOTE: This electronic message and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this message in error, any unauthorized review, use, disclosure, distribution or copying of this message is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Unless expressly stated in this e-mail, nothing in this message should be construed as a digital or electronic signature or writing.

From: Muchmore, Dennis (GOV)
Sent: Thursday, July 30, 2015 9:47 AM
To: Hollins, Harvey (GOV)
Cc: Clayton, Stacie (GOV); Clement, Elizabeth (GOV)
Subject: Re: Water Filter

Harvey-
Treasury gave us the financial info and KWA info the ministers wanted last week and Tom and Wayne are coming to the meeting. Brad has the test results and the science guy to explain the lead issue and you have the filters (I'd keep that to yourself and bring one to the meeting so you can be a hero). Frankly, I don't see what else we can do. They aren't paying more, the water is ok, and KWA is the long term answer. If they don't like the Mayor, the primary is Tuesday and we really can't get involved in that.

On Jul 29, 2015, at 6:58 PM, Hollins, Harvey (GOV) <hollinsh@michigan.gov> wrote:

> We cannot express how much we appreciate this. Thank you!!
>
> Best,
> Harvey
>
> On Jul 29, 2015, at 5:27 PM, [redacted] wrote:
>
> > They are actually being donated.
> >
> > On Jul 29, 2015, at 5:23 PM, Clayton, Stacie (GOV) <claytons3@michigan.gov> wrote:
> >
> > > Thank you, [redacted] for the quick response. Harvey does have an additional question. Is the plan for the state to purchase the filters or is the [redacted] donating them? The former is fine and the latter is great. If we purchase them we have to determine the process. If they are donated, I will identify the location in Flint where they will be shipped.
> > >
> > > Stacie
> > >
> > > **From:** [redacted]
> > > **Sent:** Wednesday, July 29, 2015 1:56 PM
> > > **To:** Clayton, Stacie (GOV)
> > > **Cc:** [redacted]
> > > **Subject:** Re: Water Filter
> > >
> > > We are actually good to go and ready to ship vice copied [redacted], the VP over the area and my assistant.

Just let us know the "ship to" and we are on our way.

On Jul 29, 2015, at 1:47 PM, Clayton, Stacie (GOV) <claytons3@michigan.gov> wrote:

> Hi [redacted]
>
> I hope you are doing well and enjoying your summer. Please let me know a convenient time for a phone call with you so we can discuss the water filters.
>
> Thank you,
> Stacie
>
> ***Stacie Clayton, Assistant Director***
> Harvey Hollins III, Director
> Governor's Office of Urban Initiatives
> 3044 West Grand Boulevard, Ste. 14-650
> Detroit, MI 48202
> 313.456.4994 (office)
> claytons3@michigan.gov
>
> ---
>
> **From:** Hollins, Harvey (GOV)
> **Sent:** Wednesday, July 29, 2015 1:43 PM
> **To:** Clayton, Stacie (GOV)
> **Subject:** Fwd: Water Filter
>
> Best,
> Harvey
>
> Begin forwarded message:
>
> > **From:** "Hollins, Harvey (GOV)" <hollinsh@michigan.gov>
> > **Date:** July 27, 2015 at 8:42:42 AM EDT
> > **To:** '[redacted]
> > **Cc:** [redacted]
> > "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>
> > **Subject: Re: Water Filter**

[redacted]
Thank you. We will work with [redacted] to identify the appropriate entity to receive the filters for Flint residents. In addition, we'll keep you out the public eye on this.

Please know, however, how much we appreciate [redacted] and most importantly you for doing this.

Best,
Harvey

On Jul 27, 2015, at 7:44 AM, [redacted] wrote:

Harvey -

We are all set. [redacted] can serve as liaison on this one. The merchant team can source 1,500 filters. We will get them to the community at cost. My guess is this will be $20k or so, but the team will give you a final number.

Because we don't want to be a state vendor, we won't sell them to you. [redacted] will work out logistics of whether we make a donation of gift cards to the state that you use to purchase them,

or whether there is some other entity to which we can give them.

Given all the circumstances, we are not interested in any publicity. We want it to be clear that the state is providing these, not [redacted]

Thanks for reaching out.

[redacted]

-----Original Message-----

From: Hollins, Harvey (GOV) [mailto:hollinsh@michigan.gov]

Sent: Thursday, July 23, 2015 12:20 PM

To: [redacted]

Subject: RE: Water Filter

Thank you.

-----Original Message-----

From: [redacted]

Sent: Thursday, July 23, 2015 10:57 AM

To: Hollins, Harvey (GOV)

Cc: [redacted]

Subject: RE: Water Filter

Will get back soon.

-----Original Message-----

From: Hollins, Harvey (GOV) [mailto:hollinsh@michigan.gov]

Sent: Wednesday, July 22, 2015 12:17 PM

To: [redacted]

Subject: Water Filter

[redacted]

Per our last conversation, I expressed that we were interested acquiring and distributing 1500 water filters to Flint residents to assist with the quality (perceived or real) of their drinking water until the KWA pipeline comes online.

A few weeks ago, you asked me to send you the product ID number so you could check with your suppliers regarding price. I apologize for taking long to send you product ID; a number of conversations needed to occur in Flint

before we could proceed.

The product ID for a Brita Filter for kitchen faucets is:

Product ID 3176421

UPC 7-23987-0078

Thank you for taking the time to look into this.

Best,

Harvey Hollins III, Director

Governor's Office of Urban Initiatives

313.456.4994<tel:313.456.4994> (office)

[redacted]

NOTE: This electronic message and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this message in error, any unauthorized review, use, disclosure, distribution or copying of this message is prohibited. If you are not the intended recipient, please contact the

sender by reply e-mail and destroy all copies of the original message. Unless expressly stated in this e-mail, nothing in this message should be construed as a digital or electronic signature or writing.

NOTE: This electronic message and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this message in error, any unauthorized review, use, disclosure, distribution or copying of this message is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Unless expressly stated in this e-mail, nothing in this message should be construed as a digital or electronic signature or writing.

From: [redacted]
Sent: Thursday, July 30, 2015 5:03 PM
To: Clayton, Stacie (GOV)
Cc: [redacted] Hollins, Harvey (GOV)
Subject: Re: Water Filter

I will pass on to [redacted] and copy all.

Thanks,

[redacted]

On Jul 30, 2015, at 3:04 PM, Clayton, Stacie (GOV) <claytons3@michigan.gov> wrote:

[redacted]

Thank you, again. Below is the address for delivery of the water filters. Is it possible for me to receive a notice when they are shipped and a tracking number? That way I can ensure someone is at the church the day of delivery.

Deliver to:

Pastor Allen Overton
Mt. Carmel Baptist Church
1610 West Pierson Road
Flint, MI 48504
810.397.0219

Please let me know if you need anything else from me.

Stacie
313.456.4994 (office)
claytons3@michigan.gov

From: Hollins, Harvey (GOV)
Sent: Wednesday, July 29, 2015 6:58 PM
To: [redacted]
Cc: Clayton, Stacie (GOV); [redacted]
Subject: Re: Water Filter

We cannot express how much we appreciate this. Thank you!!

Best,
Harvey

On Jul 29, 2015, at 5:27 PM, [redacted] wrote:

They are actually being donated.

On Jul 29, 2015, at 5:23 PM, Clayton, Stacie (GOV) <claytons3@michigan.gov> wrote:

> Thank you, [redacted] for the quick response. Harvey does have an additional question. Is the plan for the state to purchase the filters or is [redacted] donating them? The former is fine and the latter is great. If we purchase them we have to determine the process. If they are donated, I will identify the location in Flint where they will be shipped.
>
> Stacie

From: [redacted]
Sent: Wednesday, July 29, 2015 1:56 PM
To: Clayton, Stacie (GOV)
Cc: [redacted]
Subject: Re: Water Filter

We are actually good to go and ready to ship vice copied [redacted] the VP over the area and my assistant.

Just let us know the "ship to" and we are on our way.

On Jul 29, 2015, at 1:47 PM, Clayton, Stacie (GOV) <claytons3@michigan.gov> wrote:

> Hi [redacted]
>
> I hope you are doing well and enjoying your summer. Please let me know a convenient time for a phone call with you so we can discuss the water filters.
>
> Thank you,
> Stacie
>
> ***Stacie Clayton, Assistant Director***
> Harvey Hollins III, Director
> Governor's Office of Urban Initiatives
> 3044 West Grand Boulevard, Ste. 14-650
> Detroit, MI 48202
> 313.456.4994 (office)
> claytons3@michigan.gov

From: Hollins, Harvey (GOV)
Sent: Wednesday, July 29, 2015 1:43 PM
To: Clayton, Stacie (GOV)
Subject: Fwd: Water Filter

Best,
Harvey

Begin forwarded message:

> **From:** "Hollins, Harvey (GOV)" <hollinsh@michigan.gov>
> **Date:** July 27, 2015 at 8:42:42 AM EDT
> **To:** [redacted]
> **Cc:** [redacted]
> "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>
> **Subject: Re: Water Filter**
>
> [redacted]
> Thank you. We will work with [redacted] to identify the appropriate entity to receive the filters for Flint residents. In addition, we'll keep you out the public eye on this.
>
> Please know, however, how much we appreciate [redacted] and most importantly you for doing this.
>
> Best,
> Harvey
>
> On Jul 27, 2015, at 7:44 AM, [redacted] wrote:

Harvey -

We are all set. [redacted] can serve as liaison on this one. The merchant team can source 1,500 filters. We will get them to the community at cost. My guess is this will be $20k or so, but the team will give you a final number.

Because we don't want to be a state vendor, we won't sell them to you. [redacted] will work out logistics of whether we make a donation of gift cards to the state that you use to purchase them, or whether there is some other entity to which we can give them.

Given all the circumstances, we are not interested in any publicity. We want it to be clear that the state is providing these, not [redacted]

Thanks for reaching out.

[redacted]

-----Original Message-----

From: Hollins, Harvey (GOV) [mailto:hollinsh@michigan.gov]

Sent: Thursday, July 23, 2015 12:20 PM

To: [redacted]

Subject: RE: Water Filter

Thank you.

-----Original Message-----

From: [redacted]

Sent: Thursday, July 23, 2015 10:57 AM

To: Hollins, Harvey (GOV)

Cc: [redacted]

Subject: RE: Water Filter

Will get back soon.

-----Original Message-----

From: Hollins, Harvey (GOV) [mailto:hollinsh@michigan.gov]

Sent: Wednesday, July 22, 2015 12:17 PM

To: [redacted]

Subject: Water Filter

[redacted]

Per our last conversation, I expressed that we

were interested acquiring and distributing 1500 water filters to Flint residents to assist with the quality (perceived or real) of their drinking water until the KWA pipeline comes online.

A few weeks ago, you asked me to send you the product ID number so you could check with your suppliers regarding price. I apologize for taking long to send you product ID; a number of conversations needed to occur in Flint before we could proceed.

The product ID for a Brita Filter for kitchen faucets is:

Product ID 3176421

UPC 7-23987-0078

Thank you for taking the time to look into this.

Best,

Harvey Hollins III, Director

Governor's Office of Urban Initiatives

313.456.4994<tel:313.456.4994> (office)

[redacted]

NOTE: This electronic message and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this message in error, any unauthorized review, use, disclosure, distribution or copying of this message is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Unless expressly stated in this e-mail, nothing in this message should be construed as a digital or electronic signature or writing.

NOTE: This electronic message and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this

message in error, any unauthorized review, use, disclosure, distribution or copying of this message is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Unless expressly stated in this e-mail, nothing in this message should be construed as a digital or electronic signature or writing.

NOTE: This electronic message and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this message in error, any unauthorized review, use, disclosure, distribution or copying of this message is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Unless expressly stated in this e-mail, nothing in this message should be construed as a digital or electronic signature or writing.

From: Hollins, Harvey (GOV)
Sent: Friday, July 31, 2015 11:39 AM
To: Clayton, Stacie (GOV)
Subject: FW: Updated Memo on Water Coalition Questions - July 29

From: Muchmore, Dennis (GOV)
Sent: Friday, July 31, 2015 11:38:29 AM (UTC-05:00) Eastern Time (US & Canada)
To: Hollins, Harvey (GOV)
Subject: RE: Updated Memo on Water Coalition Questions - July 29

I can do it here, can't go to Flint.

From: Hollins, Harvey (GOV)
Sent: Wednesday, July 29, 2015 11:21 AM
To: Muchmore, Dennis (GOV)
Cc: Clayton, Stacie (GOV)
Subject: Re: Updated Memo on Water Coalition Questions - July 29

If your schedule permits, let's go to Flint to meet with them next week, or we can ask them to come back to Lansing. We should convey the response verbally and in person. If you're open to it, I'll ask Stacie to schedule that meeting next week.

Best,
Harvey

On Jul 29, 2015, at 9:03 AM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:

> Here's the answers to some of the questions. How do you want to approach the pastors and community leaders, we owe them answers to the questions they asked.
>
> ---
>
> **From:** Workman, Wayne (TREASURY)
> **Sent:** Wednesday, July 29, 2015 8:36 AM
> **To:** Muchmore, Dennis (GOV); Wurfel, Brad (DEQ); Lyon, Nick (DCH); Clement, Elizabeth (GOV)
> **Cc:** Saxton, Thomas (Treasury); Wisniewski, Wendy (GOV)
> **Subject:** FW: Updated Memo on Water Coalition Questions - July 29
> **Importance:** High
>
> All, Attached is a memo and water rate summary answering several of the questions raised by the Flint pastors. Please let me know if you have any questions. Wayne
>
> Wayne L. Workman
> Deputy State Treasurer
> Michigan Department of Treasury
>
> ---
>
> **From:** Cline, Richard (Treasury)
> **Sent:** Wednesday, July 29, 2015 8:21 AM

To: Workman, Wayne (TREASURY)
Cc: Dempkowski, Angela (Treasury); Byrne, Randall (Treasury)
Subject: Updated Memo on Water Coalition Questions - July 29
Importance: High

Wayne,

Attached is the water rate table you asked for and I have updated the memo to reference this as an attachment.

If you need anything else, please let me know.

Note that Rob, Randy and I will be in Benton Harbor for a portion of today conducting their annual RTAB evaluation.

Eric Cline | Department Manager
State of Michigan | Michigan Department of Treasury | Office of Fiscal Responsibility
430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
Lansing Office (517) 335-2078 [redacted] Traverse City Office (231) 922-5228
E-mail clinere1@michigan.gov

CONFIDENTIALITY NOTICE: This e-mail, and any attachments, is for the sole use of the intended recipient(s) and may contain information that is confidential and protected from disclosure under the law. Any unauthorized review, use, disclosure, or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail, and delete/destroy all copies of the original message and attachments Thank you.

<Memo on Water Coalition Questions III.07-29-15.docx>

<Flint Water Rate History FINAL 02.11.15.pdf>

From: Hollins, Harvey (GOV)
Sent: Monday, August 03, 2015 11:52 AM
To: Clayton, Stacie (GOV)
Subject: FW: Updated Memo on Water Coalition Questions - July 29

From: Muchmore, Dennis (GOV)
Sent: Monday, August 03, 2015 11:51:47 AM (UTC-05:00) Eastern Time (US & Canada)
To: Lyon, Nick (DCH); Workman, Wayne (TREASURY); Wurfel, Brad (DEQ); Clement, Elizabeth (GOV); Hollins, Harvey (GOV)
Cc: Saxton, Thomas (Treasury); Wisniewski, Wendy (GOV); Grijalva, Nancy (DCH)
Subject: RE: Updated Memo on Water Coalition Questions - July 29

Can I reprint Nancy's email?

From: Lyon, Nick (DCH)
Sent: Friday, July 31, 2015 10:57 AM
To: Muchmore, Dennis (GOV); Workman, Wayne (TREASURY); Wurfel, Brad (DEQ); Clement, Elizabeth (GOV); Hollins, Harvey (GOV)
Cc: Saxton, Thomas (Treasury); Wisniewski, Wendy (GOV); Grijalva, Nancy (DCH)
Subject: Re: Updated Memo on Water Coalition Questions - July 29

Our Public Health staff followed up a bit more on the lead question. Below is their email update to me.

From: Grijalva, Nancy (DCH)
Sent: Wednesday, July 29, 2015 11:23 AM
To: Lyon, Nick (DCH)
Subject: FW: Director's Office Assignment -- Flint - need update asap
FYI.....
-----Original Message-----
From: Peeler, Nancy (DCH)
Sent: Tuesday, July 28, 2015 2:57 PM
To: Anderson, Paula (DCH); Miller, Corinne (DCH); Travis, Rashmi (DCH); Moran, Susan (DCH); Grijalva, Nancy (DCH); Fink, Brenda (DCH)
Cc: Priem, Wesley F. (DCH); Dykema, Linda D. (DCH); Bouters, Janese (DCH); Barr, Jacqui (DCH)

Subject: RE: Director's Office Assignment -- Flint - need update asap

I apologize for the delay in responding more specifically to this assignment, it took some time to review our Childhood Lead Poisoning Prevention program data to see if it might contribute to the understanding of the situation in Flint with their water supply. Here is what we found:

We looked at lead testing results for May 2014-April 2015, which is the 12 month time frame just after Flint started drawing their water from the river (water source changed in April 2014).

We compared lead testing rates and lead testing results to the same time frame for the previous 3 years, to see if there were any patterns that suggested that there were increased rates of lead poisoning after the water supply was switched. Per the attached charts –

- Lead testing rates remained about the same from year to year (chart on the right).
- There was a spike in elevated blood lead tests from July-September 2014 (chart on the left, gold line).
- However that pattern was not terribly different from what we saw in the previous three years, especially in 2011-2012 (we are working with our Epidemiologist to statistically verify any significant differences).
- We commonly see a 'seasonal effect' with lead, related to people opening and closing windows more often in the summer, which disturbs old deteriorating paint on the windows, sills and sashes. Window fans frequently blow and spread the lead dust from the deteriorating paint to other parts of the room/house. We suspect that the summer data spike may be related to this effect.
- If the home water supply lines and/or river water were contributing to elevated blood lead tests, we expected that the increased rates would extend beyond the summer, but they drop quite a bit from September to October, stayed low over the winter, and are just starting to tail up again in the spring of 2015.

So upon review, we don't believe our data demonstrates an increase in lead poisoning rates that might be attributable to the change in water source for Flint. We recognize that lead exposure via the water is only a small piece of what may be happening for families in Flint, however, we hope the information is helpful.

Nancy Peeler

From: Muchmore, Dennis (GOV)
Sent: Wednesday, July 29, 2015 9:02 AM
To: Workman, Wayne (TREASURY); Wurfel, Brad (DEQ); Lyon, Nick (DCH); Clement, Elizabeth (GOV); Hollins, Harvey (GOV)
Cc: Saxton, Thomas (Treasury); Wisniewski, Wendy (GOV)
Subject: RE: Updated Memo on Water Coalition Questions - July 29

I think this information is very helpful. It will not answer the main question about the quality of the water (DEQ is working on that through Brad I believe), and the color and smell of the present water, but it does get us to the answers to the less subjective issues. Frankly, the only way the issues will be totally resolved is when the KWA comes on line and the water is perceived to be cleaner and healthier.
I am somewhat surprised that the leadership in Flint has not responded better to the community questions, which don't seem unreasonable at all. Seems like Harvey has a better network into some of the neighborhoods than the city does. The KWA PR department definitely needs to do some outreach or they're headed down the same road as DWSD. Do you know if they go out on a regular basis to the community and talk about the rates, costs, etc.?

From: Workman, Wayne (TREASURY)
Sent: Wednesday, July 29, 2015 8:36 AM
To: Muchmore, Dennis (GOV); Wurfel, Brad (DEQ); Lyon, Nick (DCH); Clement, Elizabeth (GOV)
Cc: Saxton, Thomas (Treasury); Wisniewski, Wendy (GOV)
Subject: FW: Updated Memo on Water Coalition Questions - July 29
Importance: High

All, Attached is a memo and water rate summary answering several of the questions raised by the Flint pastors. Please let me know if you have any questions. Wayne

Wayne L. Workman
Deputy State Treasurer
Michigan Department of Treasury

From: Cline, Richard (Treasury)
Sent: Wednesday, July 29, 2015 8:21 AM
To: Workman, Wayne (TREASURY)
Cc: Dempkowski, Angela (Treasury); Byrne, Randall (Treasury)
Subject: Updated Memo on Water Coalition Questions - July 29
Importance: High

Wayne,

Attached is the water rate table you asked for and I have updated the memo to reference this as an attachment.

If you need anything else, please let me know.

Note that Rob, Randy and I will be in Benton Harbor for a portion of today conducting their annual RTAB evaluation.

Eric Cline | Department Manager
State of Michigan | Michigan Department of Treasury | Office of Fiscal Responsibility
430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
Lansing Office (517) 335-2078 | [redacted] | Traverse City Office (231) 922-5228
E-mail clinerl@michigan.gov

CONFIDENTIALITY NOTICE: This e-mail, and any attachments, is for the sole use of the intended recipient(s) and may contain information that is confidential and protected from disclosure under the law. Any unauthorized review, use, disclosure, or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail, and delete/destroy all copies of the original message and attachments Thank you.

From: Hollins, Harvey (GOV)
Sent: Monday, August 03, 2015 11:55 AM
To: Clayton, Stacie (GOV)
Subject: FW: dennis muchmore has sent you - Flint pastors tell residents to get their water tested - from Detroit News

---

From: Muchmore, Dennis (GOV)
Sent: Monday, August 03, 2015 11:54:56 AM (UTC-05:00) Eastern Time (US & Canada)
To: Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); Hollins, Harvey (GOV); Wurfel, Sara (GOV); Wurfel, Brad (DEQ); Agen, Jarrod (GOV)
Cc: Clement, Elizabeth (GOV)
Subject: FW: dennis muchmore has sent you - Flint pastors tell residents to get their water tested - from Detroit News

Here's part of our on-going problem.

-----Original Message-----
From: do-not-reply@detroitnews.com [mailto:do-not-reply@detroitnews.com]
Sent: Monday, August 3, 2015 11:49 AM
To: Muchmore, Dennis (GOV)
Subject: dennis muchmore has sent you - Flint pastors tell residents to get their water tested - from Detroit News

Message from: muchmored@michigan.gov

Flint pastors tell residents to get their water tested

Some area pastors held a rally Sunday to urge residents to get their tap water tested

Check out this story on detroitnews.com: http://detne.ws/1SAH1K6

From: Hollins, Harvey (GOV)
Sent: Wednesday, September 02, 2015 3:13 PM
To: Snyder, Rick (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV)
Cc: Clayton, Stacie (GOV)
Subject: Flint Water Filters

As you know, [redacted] donated 1500 kitchen water filters for Flint residents as a way of providing added comfort amid concerns about Flint's water quality. [redacted] do not want any publicity or credit for the donation.

The filters were delivered to the Concerned Pastors organization, who held an event yesterday to give away the filters. Residents were invited to come to a central location to pick up their filter. The Concerned Pastors targeted low income Flint residents.

More than 1500 households showed up yesterday to pick up a filter; the Concerned Pastors exhausted the donated supply in 4 hours with 200 people still waiting to get a filter.

Best,
Harvey

From: Snyder, Rick (GOV)
Sent: Saturday, September 05, 2015 2:00 PM
To: Hollins, Harvey (GOV)
Cc: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Clayton, Stacie (GOV)
Subject: Re: Flint Water Filters

Factually accurate update; but how did it go over with the residents?

Thanks
Rick

> On Sep 2, 2015, at 3:13 PM, Hollins, Harvey (GOV) <hollinsh@michigan.gov> wrote:
>
> As you know, [redacted] donated 1500 kitchen water filters for Flint residents as a way of providing added comfort amid concerns about Flint's water quality. [redacted] do not want any publicity or credit for the donation.
>
> The filters were delivered to the Concerned Pastors organization, who held an event yesterday to give away the filters. Residents were invited to come to a central location to pick up their filter. The Concerned Pastors targeted low income Flint residents.
>
> More than 1500 households showed up yesterday to pick up a filter; the Concerned Pastors exhausted the donated supply in 4 hours with 200 people still waiting to get a filter.
>
> Best,
> Harvey

From: Hollins, Harvey (GOV)
Sent: Saturday, September 05, 2015 3:14 PM
To: Snyder, Rick (GOV)
Cc: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Clayton, Stacie (GOV)
Subject: Re: Flint Water Filters

Governor, it went over extremely well with the residents. There is a demand for more.

Best,
Harvey

> On Sep 5, 2015, at 2:00 PM, Snyder, Rick (GOV) <[redacted]> wrote:
>
> Factually accurate update; but how did it go over with the residents?
>
> Thanks
> Rick
>
>> On Sep 2, 2015, at 3:13 PM, Hollins, Harvey (GOV) <hollinsh@michigan.gov> wrote:
>>
>> As you know, [redacted] donated 1500 kitchen water filters for Flint residents as a way of providing added comfort amid concerns about Flint's water quality. [redacted] do not want any publicity or credit for the donation.
>>
>> The filters were delivered to the Concerned Pastors organization, who held an event yesterday to give away the filters. Residents were invited to come to a central location to pick up their filter. The Concerned Pastors targeted low income Flint residents.
>>
>> More than 1500 households showed up yesterday to pick up a filter; the Concerned Pastors exhausted the donated supply in 4 hours with 200 people still waiting to get a filter.
>>
>> Best,
>> Harvey
>

From: Hollins, Harvey (GOV)
Sent: Tuesday, September 15, 2015 9:52 AM
To: Clayton, Stacie (GOV)
Subject: FW: Flint

From: Muchmore, Dennis (GOV)
Sent: Tuesday, September 15, 2015 9:51:41 AM (UTC-05:00) Eastern Time (US & Canada)
To: Khouri, Nick (TREASURY); Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); Lyon, Nick (DCH); Wyant, Dan (DEQ)
Cc: Wurfel, Brad (DEQ); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Roberts, John (DTMB)
Subject: Flint

Nice of Dayne Walling to work with us before he called yesterday to tell me he was going to announce to City Council last night that Flint needs and deserves $30M from the state for upgrades to their water system and a lead abatement program. Any thoughts on this?

Governor Rick Snyder
December 9, 2015
Daily Briefing

Contents	Pages
[redacted]	
2. Flint Water – Page 54	51 – 58
[redacted]	

Redacted except for 54

Flint Fast Facts for WFNT interview

From: Comms – Jess Brown
DEQ – Brad Wurfel
DHHS – Jennifer Smith

Date: December 8, 2015

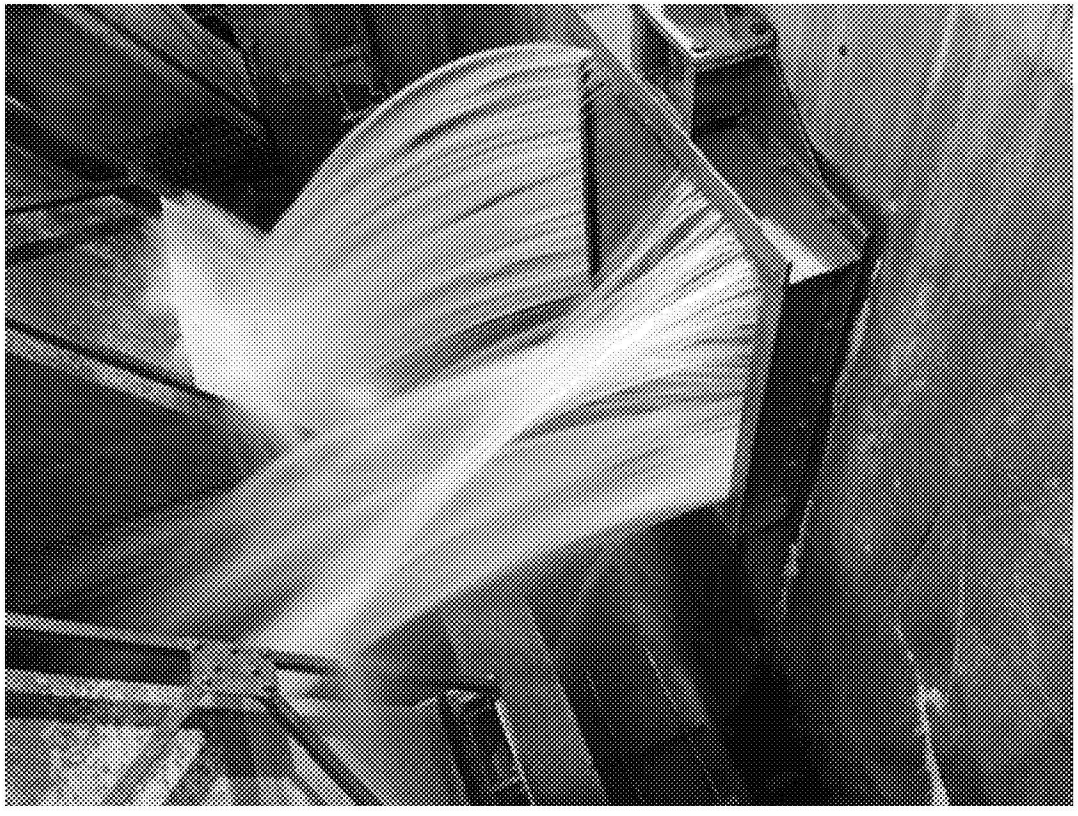
---

1. **How many people have been tested since Oct. 1 Flint Water Action Plan was implemented?**
    - Total of 1,836 tested, 39 elevated results
        - Children 0 – 5: 806 tested
        - Children 6 – 17: 525 tested
        - Adults: 505 tested

2. **What are the most recent recommendations to protect your family from lead exposure?**
    - Protecting your family from lead in the water:
        - Get your water tested for lead. It's free. Call (810) 787-6537 to learn more.
        - Use a water filter in your home. MDHHS continues to provide free water filters and replacement cartridges to Flint residents at four locations, including the MDHHS Flint offices and the Genesee County Community Action Resource Department.
        - Run only cold water through the filter.
        - If you do not have a water filter, use bottled water for drinking and mixing formula.
        - Use filtered or bottled water for drinking (including making coffee, drink mixes, juice, baby formula), and cooking (even if you boil the water, the lead will stay in the water and food).
        - If you have to use unfiltered water for drinking or cooking, run the tap for five minutes before using the water
    - Testing children:
        - Children who live in the city of Flint should be tested for lead exposure. This should be done as soon as possible.
        - The best place to get your child's blood lead test is your doctor's office. Contact your primary care provider.
        - Children can also get a free lead test at the Genesee County Health Department. For help with transportation, call 2-1-1.
    - Safe cleaning:
        - Safe cleaning is important. Keeping your home clean and safe from lead hazards will help to protect your family.
        - Buildings built before 1978 could have lead paint in them. Use wet paper towels to clean up paint chips and dust in these older buildings. Be sure to clean around windows, play areas, and floors.
        - Wash hands and toys often with soap and water.
        - You can use unfiltered tap water to wipe down countertops, mop floors, and wash clothes

The DEQ continues implementing the Governor's 10-point action plan to protect kids and families in Flint:

1. SCHOOLS TESTING
    - The Governor's plan commits that DEQ will test water in every Flint school. To date, 8 schools in Flint have undergone a thorough inspection of their plumbing. Crews from the state are completing one to two schools each weekend.
    - The story has been the same in each school inspected: lead exposure has been limited to old drinking fountains and faucets that should have been changed out years ago. When these fixtures are run for a couple minutes, lead presence drops to safe levels. If / when these fixtures are removed, it will address the lead exposure in schools.
    - DEQ has not identified lead in the deeper plumbing of the schools. That's great news. It means fixing the issue will be comparatively inexpensive and quick.



From: Hollins, Harvey (GOV)
Sent: Saturday, September 26, 2015 9:26 AM
To: Clayton, Stacie (GOV)
Subject: FW: Flint updates
Attachments: Lead Advisory Release.pdf; ATT00001.htm; BLLs in Flint v2.pptx; ATT00002.htm; FINAL Flint Lead TP 092415.docx; ATT00003.htm

---

From: Muchmore, Dennis (GOV)
Sent: Saturday, September 26, 2015 9:26:09 AM (UTC-05:00) Eastern Time (US & Canada)
To: Snyder, Rick (GOV)
Cc: Calley, Brian (GOV); Scott, Allison (GOV); Agen, Jarrod (GOV); Hollins, Harvey (GOV); Clement, Elizabeth (GOV); Walsh, John (GOV); Posthumus, Dick (GOV); Forstner, Nathaniel (GOV)
Subject: Flint updates

The memo and attachments below have captured the latest information from the departmental side on Flint succinctly. Kildee is engaged in his normal press hound routine, which is unfortunate because he's really a smart, talented guy who needs to roll up his sleeves while Ananich is looking for relief but doesn't know where it would come from and as usual is a positive force.

Frankly, I think both know that Walling went out on CYA effort due to the election, but of course can't say so. Neither has any idea where his $30M figure came from, or where we would get it even if you were so inclined.

Originally the thrust for the KWA came from the Genesee County commission and those involved in the planning for KWA including the Trades. By the time the council had voted 7-1 for it, Andy Dillon was in the position of signing off on it and did. However, it was still the right position for the long term benefit of the city and its future. They of course have not been particularly helpful in finding solutions to the issues. I will say that the Drain Commissioner has been a good partner and is working overtime on the problem.

They can't reconnect to DWSD even if they wanted to as they sold the connector line. And, especially with the new rate increases in Detroit, their citizens would be less able to pay than they already are. The water certainly has occasional less than savory aspects like color because of the apparently more corrosive aspects of the hard water coming from the river, but that has died down with the additional main filters. Taste and smell have been problems also and substantial money has been extended to work on those issues.

Now we have the anti everything group turning to the lead content which is a concern for everyone, but DEQ and DHHS and EPA can't find evidence of a major change per Geralyn's memo below. Of course, some of the Flint people respond by looking for someone to blame instead of working to reduce anxiety. We can't tolerate increased lead levels in any event, but it's really the city's water system that needs to deal with it. We're throwing as much assistance as possible at the lead problem as regardless of what the levels, explanations or proposed solutions, the residents and particularly the poor need help to deal with it.

It seems that continuing to find funds to buy local residents home filters is really a viable option and Harvey and all are pursuing more assistance in that work. Almost all the "experts" I've talked to are convinced the problem is in the old lines leading to homes and short of a massive replacement CSO type bond that wouldn't resolve the issue for a couple of years, nature (temp reductions), filters and a final connect seem to be the best courses of action.

The residents are caught in a swirl of misinformation and long term distrust of local government unlikely to be resolved.

Sent from my iPhone

Begin forwarded message:

From: "Lasher, Geralyn (DCH)" <lasherg@michigan.gov>
Date: September 25, 2015 at 4:47:01 PM EDT
To: "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Lyon, Nick (DCH)" <LyonN2@michigan.gov>, "Wyant, Dan (DEQ)" <WyantD@michigan.gov>
Cc: "Wurfel, Brad (DEQ)" <WurfelB@michigan.gov>, "Wisniewski, Wendy (GOV)" <wisniewskiw@michigan.gov>, "Grijalva, Nancy (DCH)" <GrijalvaN@michigan.gov>, "Hertel, Elizabeth (DCH)" <HertelE@michigan.gov>
Subject: Update

Quick recap on the interactions this week from the MDHHS side on the Flint water issue.

Today the City of Flint issued the attached "Lead Advisory" for residents to be aware of lead levels in drinking water and issued suggestions from the Genesee County Health Department as to what residents could do to reduce risk. These include:
-- flushing cold-water pipes by running water for approximately 5 minutes,
--using only water from the cold-water tap for drinking, cooking and making baby formula
--installing a water filter that is NSF-certified for lead removal.

We worked with the Genesee County Health Department throughout the week to get them in a more pro-active mode to provide this guidance publicly and to encourage citizens to have the City test their water if they were concerned about the quality of water at their home. The health department also issued this fact sheet http://www.gchd.us/docs/Popular_Pages/GCHD_Lead_in_Water_Fact_Sheet__2_.pdf on Thursday providing additional information on the issue.

MDHHS epidemiologists continue to review the "data" provided by a Hurley hospital physician that showed an increase in lead activity following the change in water supply. While we continue to review this data, we have stated publicly that Hurley conducted their analysis in a much different way than we do at the department. Hurley used two partial years of data, MDHHS looked at five comprehensive years and saw no increase outside the normal seasonal increases. The Hurley review was also a much smaller sample than MDHHS data as ours includes all hospital systems in Flint as well as outside laboratories.

We have also provide the attached data chart that outlines if the elevated blood lead levels were being driven by a change in water, we would have seen the elevated levels remain high after the change in water source.

We have also communicated that for WIC beneficiaries in Flint with documentation of unsanitary water, they may be able to receive ready to feed formula and have encouraged families to contact WIC to see if they are eligible for this formula. SNAP beneficiaries are able to purchase bottled water with their SNAP funds.

Talking points from MDHHS are attached as well.

Thank you,

G

Dayne Walling
Mayor

Natasha L. Henderson
City Administrator

Jason Lorenz
Public Information Officer
Office: (810) 237-2039
[redacted]
jlorenz@cityofflint.com

For Immediate Release

City of Flint Issues Lead Advisory

Flint, Michigan – September 25, 2015 – The City of Flint is issuing a Lead Advisory for residents to be aware of lead levels in drinking water after hearing concerns from the medical community. While the City is in full compliance with the Federal Safe Drinking Water Act, this information is being shared as part of a public awareness campaign to ensure that everyone takes note that no level of lead is considered safe.

The Genesee County Health Department has issued a fact sheet regarding lead precautions for residents. The fact sheet can be found on their website at www.gchd.us. Here are a few of the suggestions the Health Department recommends:

- Flush your cold-water pipes by running the water for approximately 5 minutes
- Use only water from the cold-water tap for drinking, cooking, and especially for making baby formula.
- Install a water filter that is NSF-certified for lead removal.

Lead contamination can leach into water from a home's lead water service lines, lead solder, and leaded plumbing materials including fixtures, faucets, and fittings. Older service lines with pipes and fixtures installed before 1986 can sometimes be more susceptible to lead issues due to materials used in the home such as lead based paint and lead pipes.

This message is meant as a precaution to residents and does not mean that all homes in the City will experience the same issue. Residents with concerns about lead service lines

and lead in home plumbing fixtures are encouraged to contact the City's Utilities Division to schedule a free water testing by calling the Water Treatment Plant at 810-787-6537 and pressing #1 after prompted or by emailing flintwater@cityofflint.com.

The City of Flint is working proactively along with the County Health Department, the Michigan Department of Environmental Quality, and the U.S. Environmental Protection Agency to improve the water system throughout the City. An accelerated plan to add a corrosion control agent to our water within 30 to 60 days with expedited approval from the Michigan Department of Environmental Quality is already underway. This will reduce corrosion which can cause lead in old pipes to leach into the water.

This plan is in addition to Mayor Walling's letter requesting $30 Million in water infrastructure assistance funding from the State of Michigan. $10 Million of that request would be for the replacement of lead service lines in households to ensure that lead no longer presents a danger to the drinking water of our residents. As the letter states, "It is the City's position that the abatement of lead through the removal of lead containing pipes and fixtures in homes is the best long term solution to keeping our residents' water safe."

Mayor Walling further stated: "I am extremely concerned about the risks around lead with Flint's children and I will be working tirelessly to ensure the water is safe and all of our families have the information they need. I also will continue to pursue funding for infrastructure improvements and a comprehensive healthy homes initiative that addresses lead in paint and pipes. We have to get the lead out of our community to eliminate the threat of childhood lead poisoning."

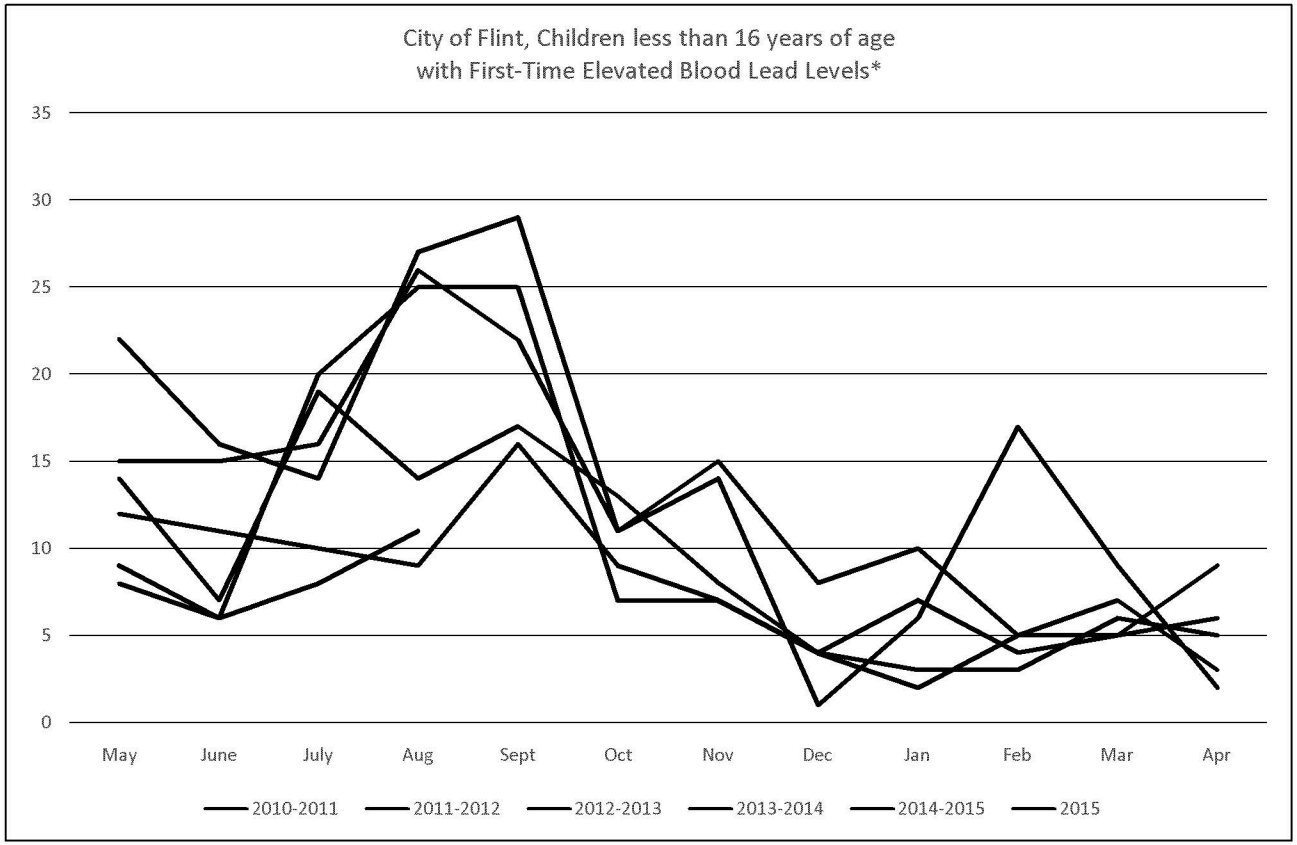
The City of Flint continues working proactively with the County Health Department, the Michigan Department of Environmental Quality, and the U.S. Environmental Protection Agency to improve the water system throughout the City. The City remains committed to working with all of our partners in the Water Technical Advisory Committee to address all

issues of public health and quality concerns that face the community. Updates on progress made in addressing this issue will be made during regular public meetings including City Council and other scheduled meetings. Information on this and all related matters will continue to be posted on the City of Flint's website, cityofflint.com.

–END–

Blood Lead Testing of Children in Flint, Before and After the Change in Flint's Water

- The change in Flint's water source occurred in April 2014. MDHHS looked at children's blood lead levels (BLL) before and after this event.
- The dark blue line (May 2014 – April 2015) and the green line (May-August 2015) reflect children's blood lead tests after the change. All other lines reflect tests before the change.
- An increase in childhood lead poisoning in summer (July, August, September) is typical throughout Michigan every year.
- While there is a dramatic difference between the numbers of elevated BLL in the summer before and after the event, a wider look that includes data back to 2010 shows that the year BEFORE the event (the yellow line) was more of an anomaly than the year after (the dark blue line).
- If elevated BLL were being driven by the change in water, we would expect the dark blue line to stay high rather than follow the seasonal pattern.
- All data included in this analysis were reported by laboratories directly to MDHHS, in accordance with State law.



*This graph includes:
Children whose address is listed as "Flint"--may not conform exactly to Flint city limits
Children less than 16 years of age at time of test
Only first-time blood lead levels >= 5 ug/dL
All first-time elevated levels, regardless of sample type (venous, capillary or unknown)

September 24, 2015

Source: MDHHS Data Warehouse, Lead Specimen table

Blood Lead Testing of Children in Flint, Before and After the Change in Flint's Water

- Blood lead testing (regardless of elevated levels) also tends to rise during late summer (August, September, October).
- This graph shows that testing in Flint has remained fairly steady over the last five years, except for a recent decline(May – August 2015).

*This graph includes:
Children whose address is listed as "Flint"--may not conform exactly to Flint city limits
Children less than 16 years of age at time of test
The number of children tested within each month.
Some children are tested more than once, and may be included in more than one month or year.

September 24, 2015

Source: MDHHS Data Warehouse, Lead Specimen table

Blood Lead Levels in Flint Talking Points
September 24, 2015

- Promoting the health of our residents is a statewide priority – a priority that includes ensuring clean, safe drinking water for all residents and especially children.
- The results of the Hurley Children's Hospital are under review by the Michigan Department of Health and Human Services.
- The analysis that Hurley conducted is different from the way MDHHS has analyzed data regarding blood lead levels in Flint.
- MDHHS is looking to see if we can replicate the results of the Hurley study to see how they achieved their results.

MDHHS Blood Lead Testing Results in Flint

- MDDHS data shows a comprehensive look at the data since 2010, years before the change in Flint's water source occurred in April 2014.
- Each year shows a seasonal increase in childhood lead poisoning in the summer months, the highest seasonal increase of which occurred in 2010.
- If elevated blood lead levels were being driven by the change in water, we would expect to see the elevated levels remain high after the change in water source, rather than follow the seasonal pattern as they did by decreasing in the fall months.
- All data included in the MDHHS analysis were reported by laboratories directly to MDHHS, in accordance with State Law.

Differences in Analysis

- MDHHS data provides a much more robust picture of the entire blood lead levels for the Flint area, and specifically, accounts for data over the full course of the past five years.
- Looking at the past five years as a whole provides a much more accurate look at the seasonal trends of lead in the area.
- Seasonal exposure is higher in the summer for a variety of reasons including children playing outside in the soil, and when windows are open and lead paint is more likely to be in the air. This seasonal increase would be unrelated to the water system.
- Our data includes children from the entire city, including all medical facilities, rather than just Hurley, has a larger age group of children, and includes a much larger sample size.
- The MDHHS analysis looks specifically at the first elevated blood lead level for each child, which provides an accurate picture of when first exposure occurred.
- The Hurley data includes a smaller sample size, much more limited time period (January-September of 2013 and 2015 only), and a smaller age group of children.

WIC Children

- In homes with infants on WIC, if the household has documentation from an official source of unsanitary water supply issues, that family may be eligible to receive ready-to-feed formula. Families should contact WIC to see if they are eligible.
- Each household would have to be looked at on an individual basis.
- WIC cannot cover bottled water.

From: Hollins, Harvey (GOV)
Sent: Monday, September 28, 2015 9:44 AM
To: Clayton, Stacie (GOV)
Subject: FW: Update
Attachments: Lead Advisory Release.pdf; ATT00001.htm; BLLs in Flint v2.pptx; ATT00002.htm; FINAL Flint Lead TP 092415.docx; ATT00003.htm

---

From: Muchmore, Dennis (GOV)
Sent: Monday, September 28, 2015 9:43:54 AM (UTC-05:00) Eastern Time (US & Canada)
To: Hollins, Harvey (GOV); Baird, Richard (GOV); Redford, James (GOV); Posthumus, Dick (GOV); Forstner, Nathaniel (GOV); Mcbride, Bill (GOV); Walsh, John (GOV)
Subject: Fwd: Update

Sent from my iPhone

Begin forwarded message:

> **From:** "Lasher, Geralyn (DCH)" <lasherg@michigan.gov>
> **Date:** September 25, 2015 at 4:47:01 PM EDT
> **To:** "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Lyon, Nick (DCH)" <LyonN2@michigan.gov>, "Wyant, Dan (DEQ)" <WyantD@michigan.gov>
> **Cc:** "Wurfel, Brad (DEQ)" <WurfelB@michigan.gov>, "Wisniewski, Wendy (GOV)" <wisniewskiw@michigan.gov>, "Grijalva, Nancy (DCH)" <GrijalvaN@michigan.gov>, "Hertel, Elizabeth (DCH)" <HertelE@michigan.gov>
> **Subject: Update**
>
> Quick recap on the interactions this week from the MDHHS side on the Flint water issue.
>
> Today the City of Flint issued the attached "Lead Advisory" for residents to be aware of lead levels in drinking water and issued suggestions from the Genesee County Health Department as to what residents could do to reduce risk. These include:
> -- flushing cold-water pipes by running water for approximately 5 minutes,
> --using only water from the cold-water tap for drinking, cooking and making baby formula
> --installing a water filter that is NSF-certified for lead removal.
>
> We worked with the Genesee County Health Department throughout the week to get them in a more pro-active mode to provide this guidance publicly and to encourage citizens to have the City test their water if they were concerned about the quality of water at their home. The health department also issued this fact sheet http://www.gchd.us/docs/Popular_Pages/GCHD_Lead_in_Water_Fact_Sheet_2_.pdf on Thursday providing additional information on the issue.
>
> MDHHS epidemiologists continue to review the "data" provided by a Hurley hospital physician that showed an increase in lead activity following the change in water supply. While we continue to review

this data, we have stated publicly that Hurley conducted their analysis in a much different way than we do at the department. Hurley used two partial years of data, MDHHS looked at five comprehensive years and saw no increase outside the normal seasonal increases. The Hurley review was also a much smaller sample than MDHHS data as ours includes all hospital systems in Flint as well as outside laboratories.

We have also provide the attached data chart that outlines if the elevated blood lead levels were being driven by a change in water, we would have seen the elevated levels remain high after the change in water source.

We have also communicated that for WIC beneficiaries in Flint with documentation of unsanitary water, they may be able to receive ready to feed formula and have encouraged families to contact WIC to see if they are eligible for this formula. SNAP beneficiaries are able to purchase bottled water with their SNAP funds.

Talking points from MDHHS are attached as well.

Thank you,
G

Dayne Walling
Mayor

Natasha L. Henderson
City Administrator

Jason Lorenz
Public Information Officer
Office: (810) 237-2039
[redacted]
jlorenz@cityofflint.com

For Immediate Release

City of Flint Issues Lead Advisory

Flint, Michigan – September 25, 2015 – The City of Flint is issuing a Lead Advisory for residents to be aware of lead levels in drinking water after hearing concerns from the medical community. While the City is in full compliance with the Federal Safe Drinking Water Act, this information is being shared as part of a public awareness campaign to ensure that everyone takes note that no level of lead is considered safe.

The Genesee County Health Department has issued a fact sheet regarding lead precautions for residents. The fact sheet can be found on their website at www.gchd.us. Here are a few of the suggestions the Health Department recommends:

- Flush your cold-water pipes by running the water for approximately 5 minutes
- Use only water from the cold-water tap for drinking, cooking, and especially for making baby formula.
- Install a water filter that is NSF-certified for lead removal.

Lead contamination can leach into water from a home's lead water service lines, lead solder, and leaded plumbing materials including fixtures, faucets, and fittings. Older service lines with pipes and fixtures installed before 1986 can sometimes be more susceptible to lead issues due to materials used in the home such as lead based paint and lead pipes.

This message is meant as a precaution to residents and does not mean that all homes in the City will experience the same issue. Residents with concerns about lead service lines

and lead in home plumbing fixtures are encouraged to contact the City's Utilities Division to schedule a free water testing by calling the Water Treatment Plant at 810-787-6537 and pressing #1 after prompted or by emailing flintwater@cityofflint.com.

The City of Flint is working proactively along with the County Health Department, the Michigan Department of Environmental Quality, and the U.S. Environmental Protection Agency to improve the water system throughout the City. An accelerated plan to add a corrosion control agent to our water within 30 to 60 days with expedited approval from the Michigan Department of Environmental Quality is already underway. This will reduce corrosion which can cause lead in old pipes to leach into the water.

This plan is in addition to Mayor Walling's letter requesting $30 Million in water infrastructure assistance funding from the State of Michigan. $10 Million of that request would be for the replacement of lead service lines in households to ensure that lead no longer presents a danger to the drinking water of our residents. As the letter states, "It is the City's position that the abatement of lead through the removal of lead containing pipes and fixtures in homes is the best long term solution to keeping our residents' water safe."

Mayor Walling further stated: "I am extremely concerned about the risks around lead with Flint's children and I will be working tirelessly to ensure the water is safe and all of our families have the information they need. I also will continue to pursue funding for infrastructure improvements and a comprehensive healthy homes initiative that addresses lead in paint and pipes. We have to get the lead out of our community to eliminate the threat of childhood lead poisoning."

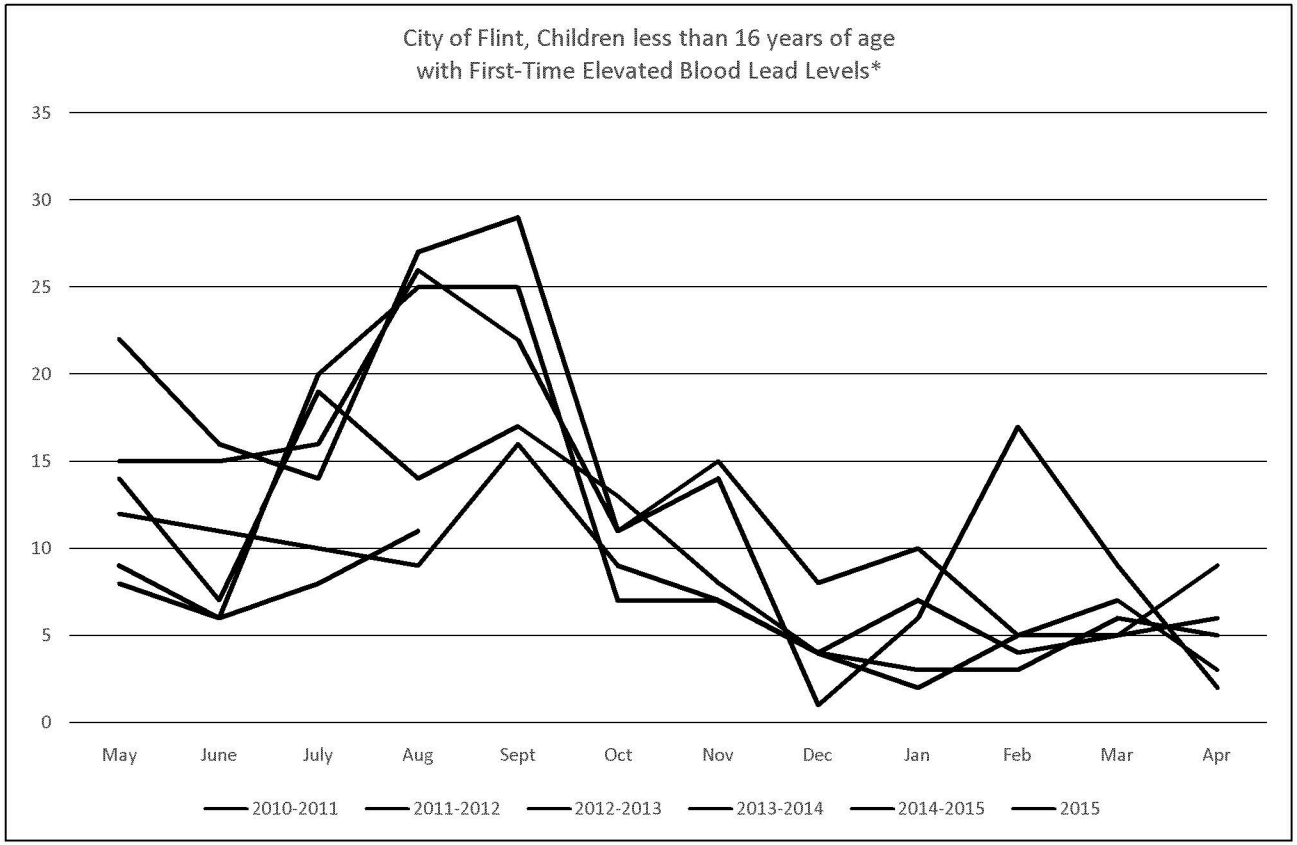
The City of Flint continues working proactively with the County Health Department, the Michigan Department of Environmental Quality, and the U.S. Environmental Protection Agency to improve the water system throughout the City. The City remains committed to working with all of our partners in the Water Technical Advisory Committee to address all

issues of public health and quality concerns that face the community. Updates on progress made in addressing this issue will be made during regular public meetings including City Council and other scheduled meetings. Information on this and all related matters will continue to be posted on the City of Flint's website, cityofflint.com.

–END–

Blood Lead Testing of Children in Flint, Before and After the Change in Flint's Water

- The change in Flint's water source occurred in April 2014. MDHHS looked at children's blood lead levels (BLL) before and after this event.
- The dark blue line (May 2014 – April 2015) and the green line (May-August 2015) reflect children's blood lead tests after the change. All other lines reflect tests before the change.
- An increase in childhood lead poisoning in summer (July, August, September) is typical throughout Michigan every year.
- While there is a dramatic difference between the numbers of elevated BLL in the summer before and after the event, a wider look that includes data back to 2010 shows that the year BEFORE the event (the yellow line) was more of an anomaly than the year after (the dark blue line).
- If elevated BLL were being driven by the change in water, we would expect the dark blue line to stay high rather than follow the seasonal pattern.
- All data included in this analysis were reported by laboratories directly to MDHHS, in accordance with State law.



*This graph includes:
Children whose address is listed as "Flint"--may not conform exactly to Flint city limits
Children less than 16 years of age at time of test
Only first-time blood lead levels >= 5 ug/dL
All first-time elevated levels, regardless of sample type (venous, capillary or unknown)

September 24, 2015

Source: MDHHS Data Warehouse, Lead Specimen table

Blood Lead Testing of Children in Flint, Before and After the Change in Flint's Water

- Blood lead testing (regardless of elevated levels) also tends to rise during late summer (August, September, October).
- This graph shows that testing in Flint has remained fairly steady over the last five years, except for a recent decline(May – August 2015).

*This graph includes:
Children whose address is listed as "Flint"--may not conform exactly to Flint city limits
Children less than 16 years of age at time of test
The number of children tested within each month.
Some children are tested more than once, and may be included in more than one month or year.

September 24, 2015

Source: MDHHS Data Warehouse, Lead Specimen table

Blood Lead Levels in Flint Talking Points
September 24, 2015

- Promoting the health of our residents is a statewide priority – a priority that includes ensuring clean, safe drinking water for all residents and especially children.
- The results of the Hurley Children's Hospital are under review by the Michigan Department of Health and Human Services.
- The analysis that Hurley conducted is different from the way MDHHS has analyzed data regarding blood lead levels in Flint.
- MDHHS is looking to see if we can replicate the results of the Hurley study to see how they achieved their results.

MDHHS Blood Lead Testing Results in Flint

- MDDHS data shows a comprehensive look at the data since 2010, years before the change in Flint's water source occurred in April 2014.
- Each year shows a seasonal increase in childhood lead poisoning in the summer months, the highest seasonal increase of which occurred in 2010.
- If elevated blood lead levels were being driven by the change in water, we would expect to see the elevated levels remain high after the change in water source, rather than follow the seasonal pattern as they did by decreasing in the fall months.
- All data included in the MDHHS analysis were reported by laboratories directly to MDHHS, in accordance with State Law.

Differences in Analysis

- MDHHS data provides a much more robust picture of the entire blood lead levels for the Flint area, and specifically, accounts for data over the full course of the past five years.
- Looking at the past five years as a whole provides a much more accurate look at the seasonal trends of lead in the area.
- Seasonal exposure is higher in the summer for a variety of reasons including children playing outside in the soil, and when windows are open and lead paint is more likely to be in the air. This seasonal increase would be unrelated to the water system.
- Our data includes children from the entire city, including all medical facilities, rather than just Hurley, has a larger age group of children, and includes a much larger sample size.
- The MDHHS analysis looks specifically at the first elevated blood lead level for each child, which provides an accurate picture of when first exposure occurred.
- The Hurley data includes a smaller sample size, much more limited time period (January-September of 2013 and 2015 only), and a smaller age group of children.

WIC Children

- In homes with infants on WIC, if the household has documentation from an official source of unsanitary water supply issues, that family may be eligible to receive ready-to-feed formula. Families should contact WIC to see if they are eligible.
- Each household would have to be looked at on an individual basis.
- WIC cannot cover bottled water.

From: Klotz, Josephine (MSP)
Sent: Tuesday, September 29, 2015 11:42 AM
To: Muchmore, Dennis (GOV); GovCalendar
Cc: Mcbride, Bill (GOV); Wisniewski, Wendy (GOV); Lyon, Nick (DCH); Grijalva, Nancy (DCH); Wyant, Dan (DEQ); Thelen, Mary Beth (DEQ); Etue, Kriste (MSP); Hollins, Harvey (GOV); Clayton, Stacie (GOV); Hansen, Rachel (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Saxton, Thomas (Treasury)
Subject: RE: RDS/DM/BM/NL/DW/Maggie Pallone/Karen Tommasulo/Col. Etue/HH - Meeting Re: Flint Water

Could we add Lt. Colonel Sands? Colonel Etue would like him to attend also.

Please and thanks?

Josephine E. Klotz
Senior Executive Management Assistant
to Col. Kriste Kibbey Etue, Director
Michigan State Police
333 S. Grand Avenue
P.O. Box 30634
Lansing, MI 48909-0634
Telephone: (517) 241-0401

"A PROUD tradition of SERVICE through EXCELLENCE, INTEGRITY, and COURTESY"

-----Original Message-----
From: Muchmore, Dennis (GOV)
Sent: Tuesday, September 29, 2015 11:38 AM
To: GovCalendar
Cc: Mcbride, Bill (GOV); Wisniewski, Wendy (GOV); Lyon, Nick (DCH); Grijalva, Nancy (DCH); Wyant, Dan (DEQ); Thelen, Mary Beth (DEQ); Etue, Kriste (MSP); Klotz, Josephine (MSP); Hollins, Harvey (GOV); Clayton, Stacie (GOV); Hansen, Rachel (GOV); Clement, Elizabeth (GOV); Agen, Jarrod (GOV); Saxton, Thomas (Treasury)
Subject: Re: RDS/DM/BM/NL/DW/Maggie Pallone/Karen Tommasulo/Col. Etue/HH - Meeting Re: Flint Water

Please add Tom Saxton to this.

> On Sep 29, 2015, at 11:36 AM, GovCalendar <GovCalendar@michigan.gov> wrote:
>
> [redacted]
>
> HH by Phone
> [redacted]
> [redacted]
> Host: [redacted] – RH to dial in as host
>
> <meeting.ics>

From: Hollins, Harvey (GOV)
Sent: Thursday, October 01, 2015 4:31 PM
To: Clayton, Stacie (GOV)
Subject: FW: Flint

From: Muchmore, Dennis (GOV)
Sent: Thursday, October 01, 2015 4:30:40 PM (UTC-05:00) Eastern Time (US & Canada)
To: Snyder, Rick (GOV)
Cc: Agen, Jarrod (GOV); Posthumus, Dick (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV)
Subject: Flint

I talked with Dayne Walling at length today a few minutes ago, and Harvey and I had separate meetings with one of the Flint minister groups and then Rep. Neely. Our conversations were cordial for the most with the normal concerns being expressed. I told Rep. Neely that I felt he hadn't gotten enough respect and insight into our thoughts on this and we expanded our backgrounder for him and he was very appreciative. He actually cancelled a Black Caucus meeting called for today on this due to Harvey and our meeting. I have Dan and Nick calling him just to update.

More importantly, we have the proposal back from DWSD for a reconnect:

1. Short term reconnect is ok until KWA starts operating;
2. No reconnect fee and immediate reconnect;
3. Expenses incurred at actual cost although no estimate at this time
4. A fixed monthly rate of $662,100 + a commodity rate of $8.93mcf for current 15-16 FY;
5. Rate is over and above water sales to Genesee County Drain Commission;
6. A water wholesale adjustment;
7. Only extends to Flint;
8. Rates for 16-17 FY would be the same as other customers.

Mayor Duggan is more than willing to lend his support.

I'm asking Saxton for a ballpark calculation. We would have to find them the money for this reconnect, but Dayne is more than open (as is Ananich to a lesser degree) to finding some revolving fund that they would repay perhaps on an extended basis or maybe using some guarantee to reduce the borrowing costs.

From: Wurfel, Sara (GOV)
Sent: Thursday, October 01, 2015 11:42 PM
To: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Hollins, Harvey (GOV); Agen, Jarrod (GOV); Posthumus, Dick (GOV); Walsh, John (GOV); Priest, Chris (GOV); Ackerman, Darin (GOV); Lange, Michelle (GOV); Mcbride, Bill (GOV); Brown, Eric (GOV); Baird, Richard (GOV)
Cc: Wisniewski, Wendy (GOV); Clayton, Stacie (GOV); Murray, David (GOV); Kennedy, Jordan (GOV); Brown, Jessica (GOV); Paciorek, Josh (GOV)
Subject: HIGH PRIORITY: Updated Flint water action plan
Attachments: NR 151002 - Flint water action plan.docx; Infographic - Flint Water Action Plan 10-2-15.pdf; Infographic - Flint water tips 10-2-15.pdf; Flint water - talking points (draft 151001).docx

Importance: High

Hi all –

Attached are several items pulled together to help announce the new comprehensive action plan related to Flint water tomorrow. This build upon past efforts and as aimed to be a real collaborative effort with local, state and federal agencies, along with city and community leaders. These items are:

- News release
- Infographics – one to summarize action plan and one to help highlight the tips for Flint residents
- High level points

The Governor, along with Dan Wyant, Nick Lyon, and Dr. Eden Wells are slated to do an embargoed media conference call with select reporters at 11:15 a.m. tomorrow.

This will be followed by a 1:30 p.m. press conference in Flint led by Directors Wyant and Lyon, moderated by Harvey, and including Dr. Wells and Flint Mayor Dayne Walling. EPA Region 5 Administrator Susan Headman dropped out late today due to some pending litigation. It's possible that Cong. Kildee and/or State Sen. Anaich and State Reps. Neely and Phelps may be participating as well.

There will also be a clearinghouse of Flint water information available at a new web site – www.michigan.gov/FlintWater. It will be live at 1 p.m. tomorrow.

Please review and let us know of any Qs, concerns, last edits, of if anything else is needed at all.

They are going through last review and refinement now. Please do not share materials until we know they are final.

Thanks much,
SW

Sara Wurfel, APR
Press Secretary | Executive Office of Governor Rick Snyder

wurfels@michigan.gov
517-335-6397, office
[redacted]
Twitter:@SaraLW

STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

RICK SNYDER
GOVERNOR

BRIAN CALLEY
LT. GOVERNOR

CONTACTS:	FOR IMMEDIATE RELEASE
Sara Wurfel or Dave Murray Governor's Office: 517-335-6397 Brad Wurfel, 517-284-6713 or Karen Tommasulo, 517-284-6714 Department of Environmental Quality Jennifer Eisner, 517-230-9804 Department of Health and Human Services	Friday, Oct. 2, 2015

Gov. Rick Snyder: Comprehensive action plan will help Flint residents address water concerns

Collaborative effort with state, federal and city leaders focuses on testing, assistance

FLINT, Mich. – Flint residents need to have access to safe, clean, water now and long into the future, Gov. Rick Snyder said, announcing a comprehensive action plan created with state, federal and city leaders to address concerns about drinking water.

The water leaving Flint's drinking water system is safe to drink, but some families with lead plumbing in their homes or service connections could experience higher levels of lead in the water that comes out of their faucets.

The action plan focuses on increasing water testing, offering additional precautions for families with lead plumbing in their homes, and providing long-term solutions to address the city's water infrastructure challenges. The plan was created at Snyder's direction by the Michigan Departments of Environmental Quality (DEQ) and Health and Human Services (DHHS), the U.S. Environmental Protection Agency, and the city of Flint.

"We are focused on helping ensure safe, clean, accessible drinking water and addressing and mitigating concerns and protecting public health," Snyder said. "Today's action plan builds upon ongoing work with local, state and federal agencies and our partnership with city and community leaders. Together, we are working to ensure that all Flint residents have accurate information and know that help is available to address potential problems."

The city and the state also are working together to gather more data to ensure the water that leaves the treatment plant as well as the water that arrives in Flint homes is safe for all residents. The plan includes:

- Testing in Flint public schools immediately to ensure that drinking water is safe, with testing also available at no cost to any other school in Flint.
- Offering free water testing to Flint residents to assure their drinking water is safe.
- Providing free water filters to residents with concerns or who are included in state assistance programs.
- Expanding health exposure testing of individual homes.

- Accelerating corrosion controls in the Flint drinking water system.
- Accelerating water system improvements to address replacing lead service lines.
- Expediting the completion of the Karegnondi Water Authority pipeline.
- Expanding a Safe Drinking Water Technical Advisory Committee to ensure the best technology, practices and science are being followed by adding an expert from the Environmental Protection Agency's Office of Research and Development to the group.
- Naming Dr. Eden Wells, chief medical executive for the Michigan Department of Health and Human Services, as the Flint drinking water public health adviser.
- Boosting a comprehensive lead education program to make sure residents have detailed information about how to protect themselves and their homes.

Residents can have their water tested by calling 810-787-6537 and pressing 1, or emailing flintwater@cityofflint.com. The DEQ is covering the cost of this testing.

State leaders have been working closely with state and federal lawmakers to tap resources at all levels of government to address concerns.

State health experts said there has been an increase in elevated childhood blood lead levels in some specific communities. Initial analysis of MDHHS data found that blood lead levels of children in Flint have followed an expected seasonal trend. While this analysis for Flint as a whole remains true, a comprehensive and detailed review breaking down data by ZIP codes with the city revealed that MDHHS data is consistent with a study presented recently by Hurley Children's Hospital.

"While we cannot conclusively say that the water source change is the sole cause of the increase, this analysis supports our efforts as we take active steps to reduce all potential lead exposures in Flint," MDHHS Director Nick Lyon said. "As part of this, we are working closely with our public and private partners to provide Flint residents on MDHHS assistance programs with free water filters and inform families about the steps they can take to reduce all lead exposures in their home."

As a part of the action plan, MDHHS is making National Sanitation Foundation certified water filters available to clients who are active Family Independence Program, Food Assistance Program, Child Development and Care or Social Security Insurance recipients.

"This action plan offers concrete steps we will take in a local, state and federal partnership to ensure all Flint residents have safe water to drink," DEQ Director Dan Wyant said. "The DEQ will work closely with the city to gather further data to ensure the water that leaves Flint's system as well as the water that arrives in Flint homes is safe to drink."

Additional information is available at www.michigan.gov/flintwater.

###

TAKING ACTION ON FLINT WATER

www.mi.gov/FlintWater

- The Action Plan -

- Testing in Flint public schools immediately to ensure that **drinking water is safe**, with testing also available at no cost to any other school in Flint.
- **Offering free water testing** to Flint residents to assure their drinking water is safe.
- **Providing free water filters** to residents with concerns or who are included in state assistance programs.
- **Expanding health exposure testing** of individual homes.
- **Accelerating corrosion controls** in the Flint drinking water system.
- **Accelerating water system improvements** to address replacing lead service lines.
- Expediting the completion of the **Karegnondi Water Authority** pipeline.
- **Expanding a Safe Drinking Water Technical Advisory Committee** to ensure the best technology, practices and science are being followed by adding an expert from the Environmental Protection Agency's Office of Research and Development to the group.
- Naming Dr. Eden Wells, chief medical executive for the Michigan Department of Health and Human Services, as the **Flint drinking water public health adviser**.
- Boosting a **comprehensive lead education program** to make sure residents have detailed information about how to protect themselves and their homes.

To get your water tested for free, please call the city of Flint Water Plant at (810) 787-6537 and then press 1.
You can also email flintwater@cityofflint.com

Visit www.mi.gov/FlintWater for more information

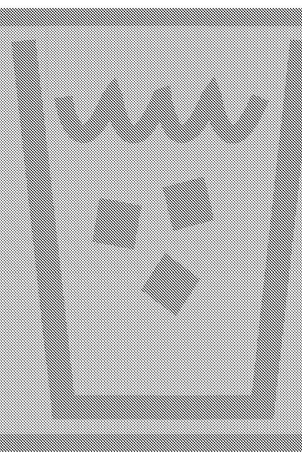
TAKING ACTION ON FLINT WATER

www.mi.gov/FlintWater

- Tips for Flint Residents -

Lead plumbing is common in homes built prior to 1986, and **anyone in the state with lead pipes in their home can take some extra precautions** to minimize lead in their drinking water.

1. Get your water tested at no cost to ensure water is safe. **To get your water tested**, please call the city of Flint Water Plant at (810) 787-6537 and then press 1.

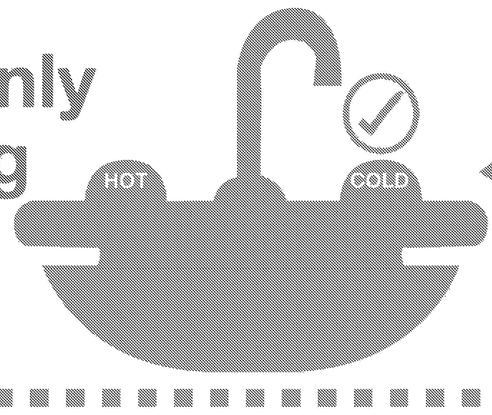


2. To ensure safe drinking water, you can also get a free filter. Please visit **mi.gov/FlintWater** to find where you can get a free filter.

3. It takes time for lead to accumulate in drinking water from plumbing, and so **flushing your pipes prior to using them** can minimize your exposure.

- To flush your pipes, run the water until it's as cold as it will go. This can take as little as 5 to 30 seconds if you have recently flushed the toilet or otherwise used water in your home, or as long as 2 to 5 minutes if you have not used any water in hours.
- In the city of Flint, **running the water for 5 minutes costs between 3 and 16 cents.**

4. Additionally, more lead gets into hot water than cold water. **Use only cold water for drinking, cooking and making baby formula.**



To get your water tested for free, please call the city of Flint Water Plant at (810) 787-6537 and then press 1.
You can also email flintwater@cityofflint.com

Visit **www.mi.gov/FlintWater** for more information

Flint Drinking Water Action Plan
Talking Points

Overall Messaging

- Repeated testing shows the water leaving Flint's drinking water system is safe to drink and meets all federal guidelines, including lead.
- After the switch the Flint River, the compliance testing protocol yielded results of 6 ppb in December 2014 and 11 ppb in June 2015. Both results were below the federal action level of 15 ppb.
- However, we recognize some residents experience higher levels of lead in the water that comes out of their faucets because of lead plumbing in the home, and that's a concern.
- Out of an abundance of caution, we want to address the needs of all Flint families, and so we have developed an action plan that includes both short- and long-term solutions.
- The state plan focuses on increasing water testing, offering additional precautions for families, and providing long-term solutions to address the city's water infrastructure.

Messaging regarding the action plan

The city and the state are working together to gather more data to ensure the water that leaves the treatment plant as well as the water that arrives in Flint homes is safe for all residents.

- **Immediately test Flint public schools to ensure that drinking water is safe. Testing will also be available at no cost to any other school in Flint.**
    - Although Flint's drinking water meets all federal requirements, the state wants to take extra steps to ensure that drinking water is safe for the city's children.
    - The state will fund this testing (about $30,000) at no cost to the city or the local schools, and make the results publicly available.

- **Expand health exposure testing of individual residences.**
    - To double-check its data as well as provide residents with an additional layer of assurance, the DEQ will conduct more tests at Flint properties.
    - The Technical Advisory Committee will determine the scope of this expanded testing.

- **Offer water testing at no cost to Flint residents to assure water is safe.**
    - Although all testing indicates water in the city of Flint meets all federal standards, we understand some residents are concerned.
    - To ensure water in individual homes is safe, free water testing is available to all Flint residents.
    - We encourage anyone with a concern to get their water tested.
    - Contact the city water department to have your water tested.

- **Accelerate optimizing corrosion controls in the Flint drinking water system.**

- A fully optimized corrosion control system can help coat the inside of pipes to minimize the amount of lead that enters the drinking water after it leaves the treatment plant.
- This is a helpful step that can help minimize lead system-wide, and we're pleased the city is moving to take this step.
- If asked: This was not initially required because a fully optimized corrosion control system is not federally required in many water systems. Even today, since Flint is meeting all federal standards, this fully optimized system is not required. However, to address public concerns and ensure every possible precaution is taken, the city is moving forward with installing this corrosion control system.

- **Expand the "Safe Drinking Water Technical Advisory Committee" to ensure the best technology, practices and science are being utilized, and add an expert from the EPA's Office of Research and Development to the group.**
  - The Safe Drinking Water Technical Advisory Committee will meet Oct. 7 to discuss fully optimizing the corrosion control system, expanding testing of at-risk properties, and other topics.
  - Tom Burke, the Deputy Assistant Administrator of EPA's Office of Research and Development as well as the EPA's Science Advisor, will participate on the committee. Prior to joining EPA, he held prominent positions at the Johns Hopkins Bloomberg School of Public Health and founded the Johns Hopkins Risk Sciences and Public Policy Institute. He brings substantial expertise, and we're pleased he is able join the committee.

- **Accelerate water system improvements to address replacement of lead service lines.**
  - Regardless of the drinking water source – whether it be DWSD, the Flint River or Lake Huron – the only permanent fix for lead is to replace all 18,000 of the private lead service lines in the city. These are the lines on private property that lead from the curb to individual homes.
  - This is a problem in communities statewide, and one we want to address with a long-term solution.
  - The state and EPA are working together to find a way for the city to access Drinking Water Revolving Loan funds for the work.

- **Expedite completion of Karegnondi Water Authority.**
  - The move to the Flint River was always a temporary measure until the connection to the KWA and to Lake Huron was completed.
  - This is the ultimate goal of the venture, and the state and locals will work together to speed up completion of the connection.
  -

- **Name Dr. Eden Wells as Flint Drinking Water Public Health Advisor.**
  - Dr. Wells is the Director for the Preventive Medicine Residency at the University of Michigan School of Public Health in Ann Arbor as well as the Chief Medical Executive for MDHHS.

- She brings years of experience in epidemiology and preventative medicine to the issue, and we're thrilled to have her expertise.
- Dr. Wells will coordinate with Hurley Medical Center to share data on blood lead levels in children, as well as address other emerging issues.

- **Provide water filters to residents of Flint.**
  - As an additional precaution, water filters will be available to low-income families.
  - This provides another safeguard to ensure everyone in the city of Flint has access to clean drinking water that they feel confident drinking.

- **Expand a comprehensive lead education initiative.**
  - Lead plumbing is common in homes built prior to 1986, and anyone in the state with lead pipes in their home can take some extra precautions to minimize lead in their drinking water.
  - It takes time for lead to accumulate in drinking water from plumbing, and so flushing your pipes prior to using them can minimize your exposure.
    - To flush your pipes, run the water until it's as cold as it will go. This can take as little as 5 to 30 seconds if you have recently flushed the toilet or otherwise used water in your home, or as long as 2 to 5 minutes if you have not used any water in hours.
    - In the city of Flint, running the water for 5 minutes only costs about 3-16 cents, depending on your faucet.
  - Additionally, more lead gets into hot water than cold water. Use only cold water for drinking, cooking and making baby formula.

From: Brian Larkin <blarkin@flintandgenesee.org>
Sent: Wednesday, October 07, 2015 3:38 PM
To: Hollins, Harvey (GOV)
Cc: Clayton, Stacie (GOV)
Subject: Flint City Council KWA Vote

Still waiting on hearing back from the city to get the original resolution but here are the mlive pieces that covered it from March until July. The meeting when the vote was held was March 25, 2013

March 25th 2013 **Flint council supports buying water from Lake Huron through KWA**
http://www.mlive.com/news/flint/index.ssf/2013/03/flint_city_council_again_delay.html
The Flint City Council voted 7-1 to get 16 million gallons per day from the Karegnondi Water Authority.

7th Ward councilperson Dale Weighill was absent
3rd Ward councilperson Bryant Nolden opposed
The rest were in favor.

March 25th, 2013 **Flint City Council approves resolution to buy water from Karegnondi, state approval still needed**
http://www.mlive.com/news/flint/index.ssf/2013/03/flint_city_council_approves_re.html
Under the proposal, Flint would get 16 million gallons per day of raw water from Lake Huron, pipe it to Flint for treatment and then sell it to customers throughout the City. Another 2 million gallons per day would come from the Flint River and will be treated in Flint. DEQ told the city it needed to get 18 million gallons per day or there would have to be additional work done at Flint's water plant. Flint's water plant and the Flint River is currently the backup for Flint and Genesee County, however, the plant only operates four times per year.

April 12th **State gives Flint OK to join Karegnondi Water Authority project, but Detroit gets to make final offer**

http://www.mlive.com/news/flint/index.ssf/2013/04/state_gives_flint_ok_t.html

The city of Flint has the state's blessing to join in construction of the planned Karegnondi Water Authoritypipeline project once it reviews a final offer from the city of Detroit on Monday, April 15.

April 19th **Governor steps into water war; set to meet with Genesee, Flint, Detroit today**

http://www.mlive.com/news/flint/index.ssf/2013/04/governor_steps_into_water_war.html#incart_river_default

The meeting comes in the same week that the Flint and Genesee County rejected a final offer to continue buying water from Detroit and two days after Detroit gave Flint a notice of termination of its 1965 water contract.

April 19th **Detroit gives notice: It's terminating water contract covering Flint, Genesee County in one year**

http://www.mlive.com/news/flint/index.ssf/2013/04/detroit_gives_notice_its_termi.html

The city of Detroit has given notice that it's terminating a nearly 50-year-old contract for selling water to Flint and the county next year.

July 23rd **Flint River now an option for drinking water following Detroit's termination of contract**

http://www.mlive.com/news/flint/index.ssf/2013/07/city_readying_water_plant_to_t.html

The Flint River was not a viable option to provide drinking water to city residents when the water relationship between Flint and Detroit was stable. But river water might be used temporarily as the city's water supply now that Flint signed an agreement with the Karegnondi Water Authority and will get up to 18 million gallons per day of raw water in 2016 from Lake Huron. The Flint River hadn't been an option, city officials previously said, because upgrades to Flint's water plant would be too expensive, the river didn't provide enough capacity to serve Flint residents' water needs and the Michigan Department of Environmental Quality would not allow it.

Brian Larkin

Director, Core Initiatives

Flint & Genesee Chamber of Commerce
519 S. Saginaw Street • Suite 200 • Flint, MI 48502
(P) 810.600.1406 [redacted] • (F) 810.600.1461
www.FlintandGenesee.org • BLarkin@FlintandGenesee.org

CONFIDENTIALITY NOTICE:
This email message and any accompanying data or files is confidential and may contain privileged information intended only for the named recipient(s). If you are not the intended recipient(s), you are hereby notified that the dissemination, distribution, and or copying of this message is strictly prohibited. If you receive this message in error, or are not the named recipient(s), please notify the sender at the email address above, delete this email from your computer, and destroy any copies in any form immediately. Receipt by anyone other than the named recipient(s) is not a waiver of any attorney-client, work product, or other applicable privilege.

From: Brian Larkin <blarkin@flintandgenesee.org>
Sent: Wednesday, October 07, 2015 4:14 PM
To: Clayton, Stacie (GOV)
Subject: RE: Flint City Council KWA Vote
Attachments: KWA Contract (amended) 130165.2.pdf; CC Meeting Minutes 3-25-2013 (1).doc

Brian Larkin

Director, Core Initiatives

Flint & Genesee Chamber of Commerce
519 S. Saginaw Street • Suite 200 • Flint, MI 48502
(P) 810.600.1406 [redacted] • (F) 810.600.1461
www.FlintandGenesee.org • BLarkin@FlintandGenesee.org

CONFIDENTIALITY NOTICE:
This email message and any accompanying data or files is confidential and may contain privileged information intended only for the named recipient(s). If you are not the intended recipient(s), you are hereby notified that the dissemination, distribution, and or copying of this message is strictly prohibited. If you receive this message in error, or are not the named recipient(s), please notify the sender at the email address above, delete this email from your computer, and destroy any copies in any form immediately. Receipt by anyone other than the named recipient(s) is not a waiver of any attorney-client, work product, or other applicable privilege.

From: Clayton, Stacie (GOV) [mailto:claytons3@michigan.gov]
Sent: Wednesday, October 07, 2015 4:08 PM
To: Brian Larkin <blarkin@flintandgenesee.org>
Subject: RE: Flint City Council KWA Vote

Thank you, Brian. Please copy me also when you send the actual resolution. Your help is greatly appreciated.

Stacie

From: Brian Larkin [mailto:blarkin@flintandgenesee.org]
Sent: Wednesday, October 07, 2015 3:38 PM
To: Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Cc: Clayton, Stacie (GOV) <claytons3@michigan.gov>
Subject: Flint City Council KWA Vote

Still waiting on hearing back from the city to get the original resolution but here are the mlive pieces that covered it from March until July. The meeting when the vote was held was March 25, 2013

March 25th 2013 **Flint council supports buying water from Lake Huron through KWA**
http://www.mlive.com/news/flint/index.ssf/2013/03/flint_city_council_again_delay.html
The Flint City Council voted 7-1 to get 16 million gallons per day from the Karegnondi Water Authority.

7th Ward councilperson Dale Weighill was absent
3rd Ward councilperson Bryant Nolden opposed
The rest were in favor.

March 25th, 2013 **Flint City Council approves resolution to buy water from Karegnondi, state approval still needed**
http://www.mlive.com/news/flint/index.ssf/2013/03/flint_city_council_approves_re.html
Under the proposal, Flint would get 16 million gallons per day of raw water from Lake Huron, pipe it to Flint for treatment and then sell it to customers throughout the City. Another 2 million gallons per day would come from the Flint River and will be treated in Flint. DEQ told the city it needed to get 18 million gallons per day or there would have to be additional work done at Flint's water plant. Flint's water plant and the Flint River is currently the backup for Flint and Genesee County, however, the plant only operates four times per year.

April 12th **State gives Flint OK to join Karegnondi Water Authority project, but Detroit gets to make final offer**

http://www.mlive.com/news/flint/index.ssf/2013/04/state_gives_flint_ok_t.html

The city of Flint has the state's blessing to join in construction of the planned Karegnondi Water Authoritypipeline project once it reviews a final offer from the city of Detroit on Monday, April 15.

April 19th **Governor steps into water war; set to meet with Genesee, Flint, Detroit today**

http://www.mlive.com/news/flint/index.ssf/2013/04/governor_steps_into_water_war.html#incart_river_default

The meeting comes in the same week that the Flint and Genesee County rejected a final offer to continue buying water from Detroit and two days after Detroit gave Flint a notice of termination of its 1965 water contract.

April 19th **Detroit gives notice: It's terminating water contract covering Flint, Genesee County in one year**

http://www.mlive.com/news/flint/index.ssf/2013/04/detroit_gives_notice_its_termi.html

The city of Detroit has given notice that it's terminating a nearly 50-year-old contract for selling water to Flint and the county next year.

July 23rd **Flint River now an option for drinking water following Detroit's termination of contract**

http://www.mlive.com/news/flint/index.ssf/2013/07/city_readying_water_plant_to_t.html

The Flint River was not a viable option to provide drinking water to city residents when the water relationship between Flint and Detroit was stable. But river water might be used temporarily as the city's water supply now that Flint signed an agreement with the Karegnondi Water Authority and will get up to 18 million gallons per day of raw water in 2016 from Lake Huron. The Flint River hadn't been an option, city officials previously said, because upgrades to Flint's water plant would be too expensive, the river didn't provide enough capacity to serve Flint residents' water needs and the Michigan Department of Environmental Quality would not allow it.

Brian Larkin

Director, Core Initiatives

Flint & Genesee Chamber of Commerce
519 S. Saginaw Street • Suite 200 • Flint, MI 48502
(P) 810.600.1406 [redacted] • (F) 810.600.1461
www.FlintandGenesee.org • BLarkin@FlintandGenesee.org

CONFIDENTIALITY NOTICE:
This email message and any accompanying data or files is confidential and may contain privileged information intended only for the named recipient(s). If you are not the intended recipient(s), you are hereby notified that the dissemination, distribution, and or copying of this message is strictly prohibited. If you receive this message in error, or are not the named recipient(s), please notify the sender at the email address above, delete this email from your computer, and destroy any copies in any form immediately. Receipt by anyone other than the named recipient(s) is not a waiver of any attorney-client, work product, or other applicable privilege.

Resolution: 130165.2

Presented: 3-11-13

Adopted: 3-25-13

AMENDED RESOLUTION TO PURCHASE CAPACITY FROM KAREGNONDI WATER AUTHORITY

BY THE MAYOR:

The Karegnondi Water Authority (KWA) is a governmental consortium of cities and counties in southeastern Michigan that was created to build a water pipeline that will provide water from Lake Huron to interested communities in Sanilac, Lapeer, and Genesee counties. The incorporating bodies that created the KWA are Sanilac County, Lapeer County, Genesee County, the City of Flint, and the City of Lapeer.

The City of Flint is currently in a year to year contract with the City of Detroit for the purchase of water. A study was conducted that projected that staying with Detroit will cost the region $2.1 billion over the next 25 years. In contrast, if the region builds its own pipeline, the projected costs are $1.9 billion over the same period. After the initial 25 year period, the projected costs would be less then 25% of the projected water costs from Detroit.

In order to build the pipeline, the KWA needs commitment from its members regarding the capacity that each member will purchase in the pipeline. The KWA is allowed to withdraw 85 million gallons of water per day. Capacity is available to members in increments of 1 million gallons per day known as units. For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one time fee of $32,300.00. Additionally, the buyer shall pay to the KWA not less then $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount not to exceed $355,300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00 the buyer has a right to cancel the contract.

The purchase of capacity along with the payment of other costs necessary to operate the pipeline gives the member a right to water for sale to its customers. The buyer has a right to resell capacity and water rights. Each party entering into a capacity contract shall also be entitled to appoint additional board members equal to the party's percentage share of the total capacity under contract.

The City of Flint has decided that it is in its long term best interests to enter into a contract with the KWA to purchase SIXTEEN (16) units of capacity, plus TWO (2) units from the Flint River.

IT IS RESOLVED that City officials are authorized to enter into a contract with KWA to purchase SIXTEEN (16) units of capacity, plus TWO (2) units from the Flint River.

IT IS FURTHER RESOLVED that the City Administrator is authorized to provide KWA information needed to administer the contract and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract.

APPROVED AS TO FORM:

Peter M. Bade
Chief Legal Officer

APPROVED AS TO FINANCE:

Gerald Ambrose
Finance Director

APPROVED BY MAYOR:

Dayne Walling
Mayor

APPROVED BY CITY COUNCIL
ON: March 25, 2013

Inez Brown
Clerk, City of Flint

APPROVED BY
CITY COUNCIL
MAR 25 2013

S:\JP\Ordinances and Resos\KWA.03.08.13.doc

City of Flint, Michigan

Third Floor, City Hall
1101 S. Saginaw Street
Flint, Michigan 48502
www.cityofflint.com

Meeting Minutes - Draft

Monday, March 25, 2013

5:33 PM

Agenda amended to include Board of Hospital Managers appointments

Council Chambers

CITY COUNCIL

Scott Kincaid, President, Ward 9
Bryant W. Nolden, Vice President, Ward 3

Claudia Croom, Ward 1 ***Jacqueline Poplar, Ward 2***
Joshua M. Freeman, Ward 4 ***Bernard Lawler, Ward 5***
Sheldon A. Neeley, Ward 6 ***Dale K. Weighill, Ward 7***
Michael J. Sarginson, Ward 8

Inez M. Brown, City Clerk

CALL TO ORDER

President Scott Kincaid called the meeting to order at 5:33 p.m.

ROLL CALL

Councilperson Michael Sarginson arrived at 5:37 p.m.

Present: Councilperson: Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, Kincaid, Councilperson Weighill and Councilperson Croom

PLEDGE OF ALLEGIANCE

Councilperson Sheldon Neeley led the Pledge of Allegiance.

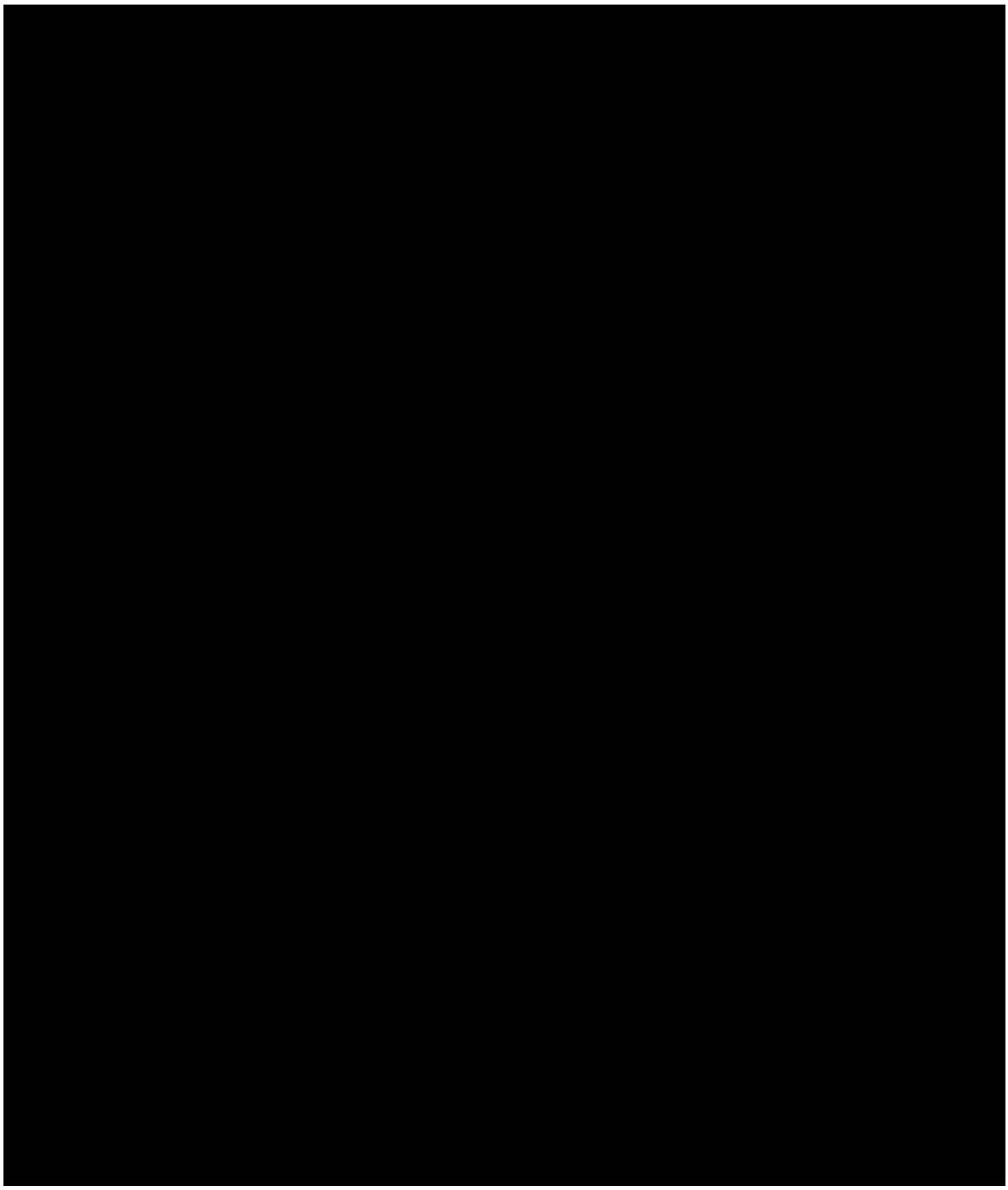
SPECIAL ORDER

130217 Special Order/Information & Discussion/Karegnondi Water Authority (KWA)

A Special Order as requested by Council President Scott Kincaid to continue discussion and review of information on the Karegnondi Water Authority (KWA).

Presented

PETITIONS AND UNOFFICIAL COMMUNICATIONS



COMMUNICATIONS FROM CITY OFFICIALS

[redacted]

130196 Flint City Council/Public Notice/Special City Council Meeting/March 18, 2013

Public Notice posted March 14, 2013, re: The Flint City Council will hold a Special City Council Meeting, followed by a Finance Committee Meeting, at 5:30 p.m. Monday, March 18, 2013, in the City Council Chambers, 3rd Floor, City Hall, to consider a contract with the Karegnondi Water Authority (KWA).

This matter was Placed on File. The motion carried.

[redacted]

PUBLIC SPEAKERS

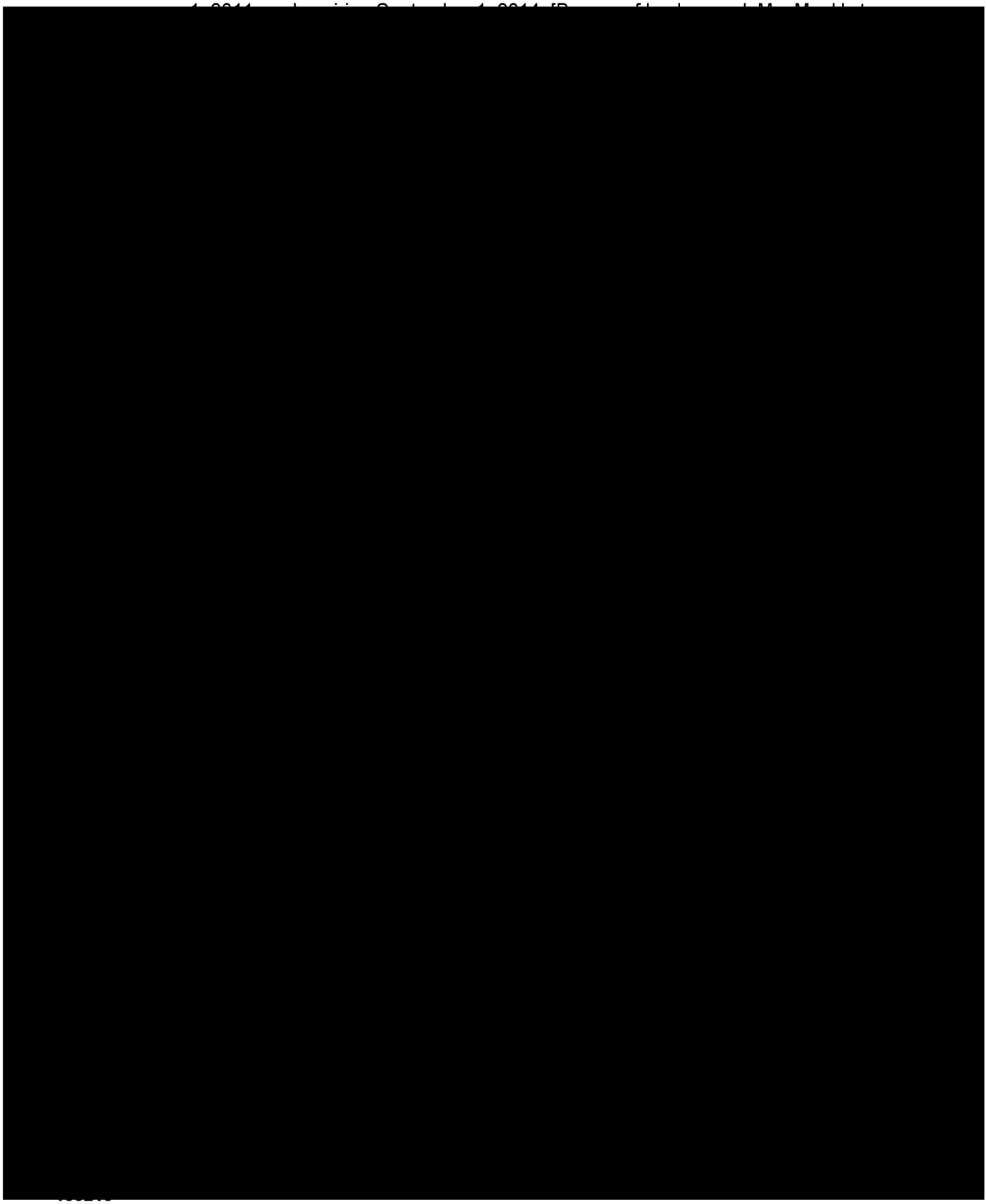
ROLL CALL

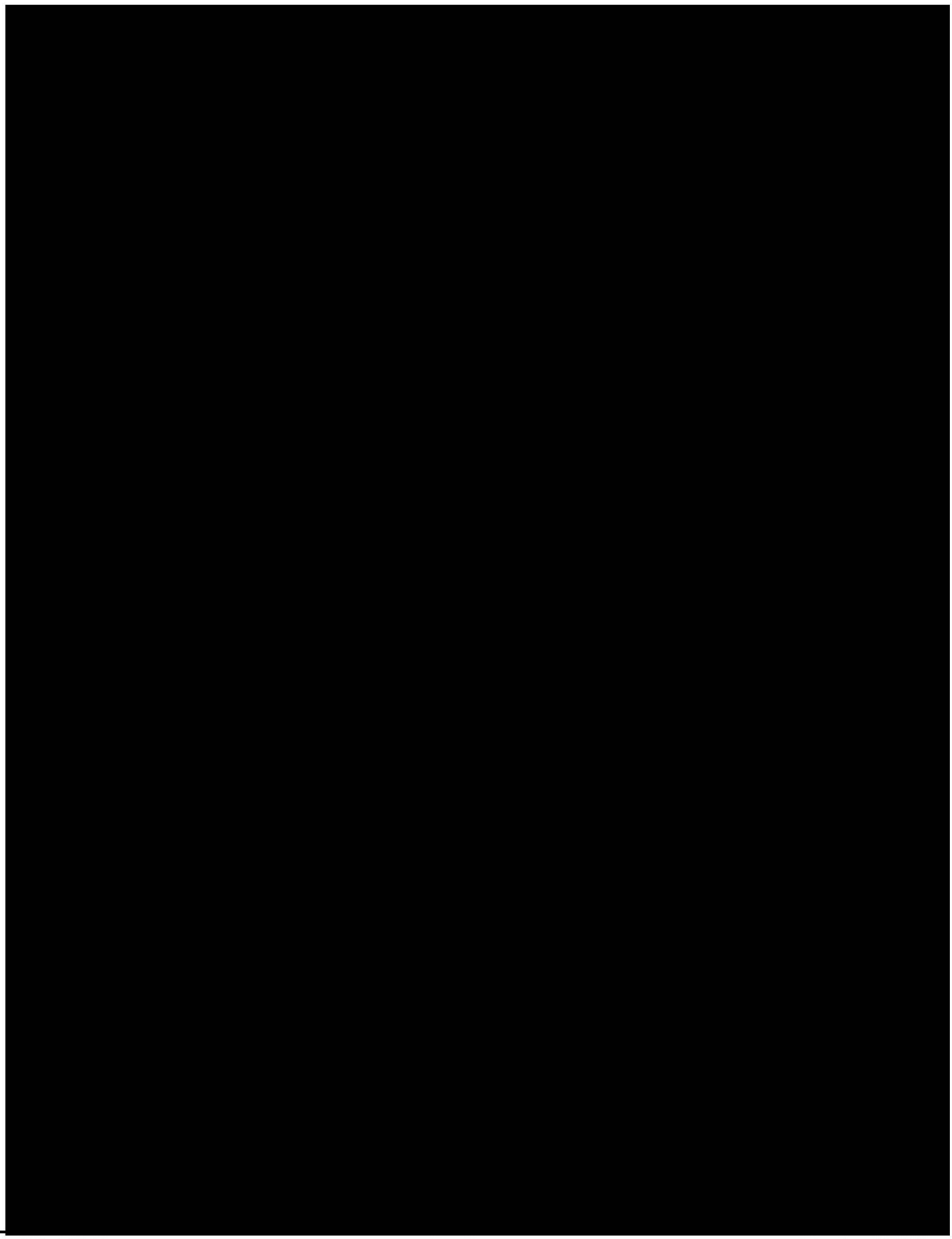
Councilperson Dale Weighill left at approximately 7 p.m.

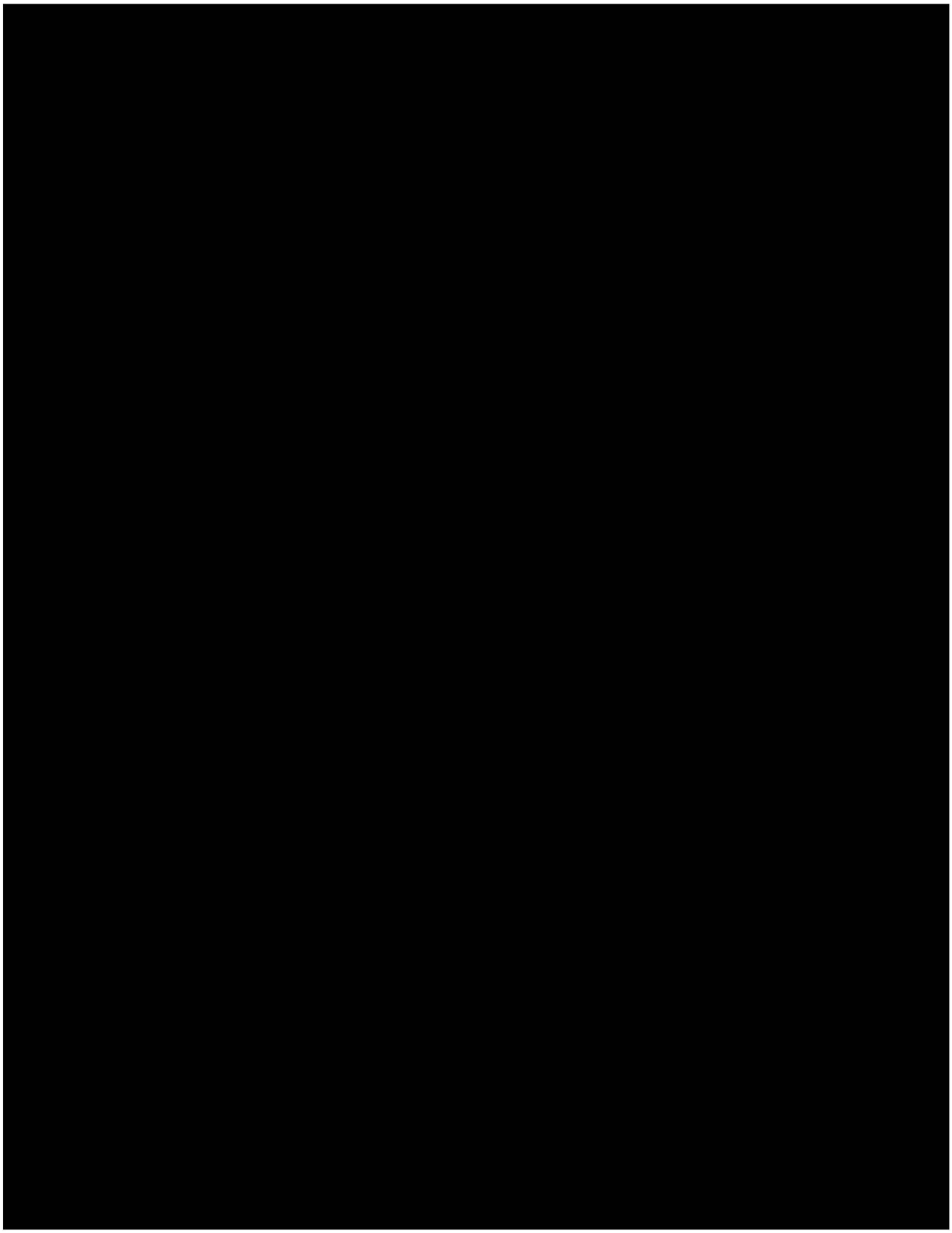
Present: Councilperson: Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, Kincaid and Councilperson Croom

Absent: Councilperson: Councilperson Weighill

APPOINTMENTS







RESOLUTIONS

130165.1 Amended Resolution/Contract/City of Flint/Karegnondi Water Authority (KWA)

Amended resolution resolving that city officials are authorized to enter into a contract with Karegnondi Water Authority (KWA) to purchase fifteen (15) units of capacity, AND, resolving that the City Administrator is authorized to provide KWA information needed to administer the contract, and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract. [NOTE: For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one-time fee of $32,300. Additionally, the buyer shall pay to the KWA not less than $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount NOT-TO-EXCEED $355,300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00, the buyer has a right to cancel the contract. Over the next 25 years, it is expected that continuing with Detroit will cost the region $2.1 billion, compared to $1.9 billion with a pipeline.] [NOTE: Contract not included.] [NOTE: Resolution amended from 18 to 15 units of capacity.]

A motion was made by Councilperson Neeley, seconded by Councilperson Freeman, that this matter be Amended. The motion carried by the following vote:

Aye: 5 - Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley and Councilperson Sarginson

No: 3 - Councilperson Poplar, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130165.2 Amended Resolution/Contract/City of Flint/Karegnondi Water Authority (KWA)

Amended resolution resolving that city officials are authorized to enter into a contract with Karegnondi Water Authority (KWA) to purchase sixteen (16) units

of capacity, AND, resolving that the City Administrator is authorized to provide KWA information needed to administer the contract, and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract. [NOTE: For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one-time fee of $32,300. Additionally, the buyer shall pay to the KWA not less than $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount NOT-TO-EXCEED $355,300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00, the buyer has a right to cancel the contract. Over the next 25 years, it is expected that continuing with Detroit will cost the region $2.1 billion, compared to $1.9 billion with a pipeline.] [NOTE: Contract not included.] [NOTE: Resolution amended from 15 to 16 units of capacity.]

A motion was made by Councilperson Neeley, seconded by Councilperson Freeman, that this matter be Adopted. The motion carried by the following vote:

Aye: 7 - Councilperson Poplar, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

No: 1 - Vice President Nolden

Absent: 1 - Councilperson Weighill

[redacted]

RESOLUTIONS - MAY BE REFERRED FROM S.A.

[redacted]

MEETING SCHEDULE

ADDITIONAL COUNCIL DISCUSSION

ADJOURNMENT

Having no further business, Council President Scott Kincaid adjourned the meeting at 8:59 p.m.

Respectfully transcribed and submitted,

Janell Johnson. Administrative Secretarv to Citv Council